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AUTHOR Butler, Matilda
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ABSTRACT

This volume is a progress report on the status of women in elementary and secondary education. Two other volumes focus on postsecondary education. The most recent statistics available are used, and often updates of previous studies have been sought. The report emphasizes national data, and broad surveys or studies received preference. The intention of the publication is to report on the similarities and differences between females and males in elementary and secondary education. The report is organized according to concerns--student, and then professional. Information is first presented on the student-related concerns of enrollment; role portrayal in instructional materials; courses; athletics and extracurricular activities; and outcomes (including grades, knowledge, aptitudes, graduation, intent to continue education, intended areas of future study, and attitudes). Then, information is presented on the professional concerns of training, employment, salary, and governance. (Author/MIP)

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volume 1

education: the critical filter

a statistical report on the status of girls and
women in elementary and secondary education

Matilda Butler

1979

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Patricia Roberts Harris, Secretary
Mary F. Berry, Assistant Secretary for Education
Office of Education
William L. Smith, Commissioner
Women's Educational Equity Act Program
Leslie R. Wolfe, Director

WOMEN'S EDUCATIONAL EQUITY COMMUNICATIONS NETWORK

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1855 Folsom Street, San Francisco, California 94103
(415) 565-3032

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If you would like to know more about WEECN, please write to us.

—Matilda Butler, Director

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Introduction

QUOTE:

Arithmetic tells you how many you lose or win if you know how many you had before you lost or won.

- Carl Sandburg, 1950

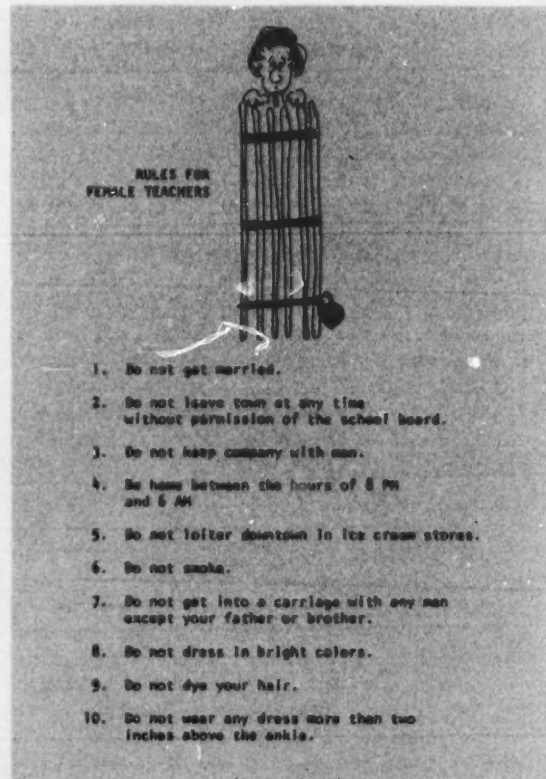
With media slogans like "You've come a long way, baby," and media emphasis on the "first women to," it has become difficult to evaluate the status of women. Are we better off than we were? Are we reaching equity? Have we moved beyond discrimination? Those of us in education find a frequent need to know how we are doing in school, how many of us there are, where we are going, how much we are getting paid, and other facts and figures about our existence. However, there is always an ambivalence about such numbers. In applying to everyone, it seems as if these national statistics rarely provide an accurate description of our own unique situation. And yet, during this period of charting progress toward educational equity for women, these statistics are markers along the path.

This volume is a progress report on the status of women in elementary and secondary education. Two other volumes focus on post-secondary education. In all three volumes our emphasis is the present. We have used the most recent statistics we could locate. In the future, these figures will help us know where we once were. However, we have also collected information from previous decades so that we can begin to compare where we are now with where we once were. In some ways, this report is like Robert Benchley's mythological bird, the Killeyloo. The bird



always flew backward first, because it couldn't tell where it was going until it had seen where it had been. In knowing where we have been and where we are now, we can see more clearly where we are going.

In looking backwards, we found some of the formal rules that once kept a woman "in her place." In a 1915 Massachusetts school department manual, we read:



No longer do we find such blatant regulations. However, as recent Title IX complaints have demonstrated, women and men in education continue to be treated differently. For instance, one woman--

we'll call her Susan--asked her principal for permission to leave school at 3:45 p.m. each day in order to attend classes. Although her teaching responsibilities were over at that time, permission was denied. Susan filed a Title IX complaint because a male teacher at her school was given permission to leave early to get to his classes.

Susan's experience is not unusual, and many teachers and students are beginning to state their concerns. However, it is not within the scope of this report to collect such individual documentation. It is the intent of the publication to bring together statistics from the many national sources that reflect on the status of women in elementary and secondary education.

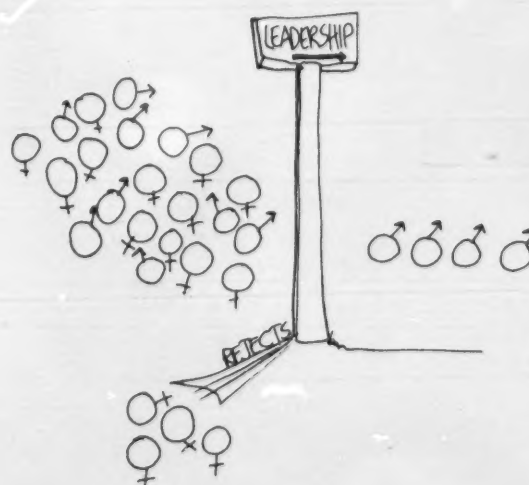
THE CRITICAL FILTER NOTION. The theme of this publication is borrowed from Lucy Sells, who has done pioneering work on the concept of "math as the critical filter." Just as she documented how mathematics is the critical filter for certain occupations, we document how education is the critical filter for most experiences in adulthood. Stated simply, to become an engineering major in college, one needs four years of high school college preparatory math--and one should probably have a year of high school physics as well as a year of high school chemistry. To have less means one would be "filtered" out of engineering. Similarly, options in adulthood including types of work and forms of recreation depend on education. Four years of high school permits more options than three. But the education filter notion means more than the maxim that the more education one has, the more opportunities there are.

The educational experience is not the same for everyone. The filter works in many aspects of education. Those of us concerned with educational equity for women note the disparities between the sexes in enrollment, role portrayal in educational materials, courses, counseling, athletics, extracurricular activities, outcomes, etc. For instance, if males participate in more sports than females, their high school experience is different. If these males are learning lessons in sports that could later help them on the job¹, then a lack



of experience with such sports may filter women out of on-the-job success. If boys are counseled into vocational education courses that lead toward employment in skilled trades, and girls are counseled into home economics courses that lead toward low-paying jobs or no employment, then counseling is a part of the education filter that creates different adult experiences for females and males.

In addition to these student focused concerns, there is a similar set of disparities between the women and men who are employed in elementary and secondary education. These differences are manifested in training, employment, salary, and governance. If males entering the field of education as undergraduates are encouraged to go on to graduate school



¹ See Betty L. Harragan's *Games Mother Never Taught You* as an example of how team sports give males

the advantage over females in the employment situation.

("They'll need the additional training for when they become principals and administrators") while females are not encouraged ("They'll know enough to be elementary school teachers"), then the training filter indeed helps to keep women out of leadership roles.

Each concern, whether focused on the student or the professional, can be documented. This report represents an effort to consolidate this documentation. Once documented, each can be addressed by one or more processes of educational change. These processes include legislation and regulation, program revision and program innovation, dissemination and communication, and research and development (see Figure 1). It is beyond the scope of this report to recommend which concerns are best met by which educational change process. Those with differing values will attribute different interpretations to the data, and will therefore suggest different next steps. This report, then, is to inform on the relative similarities and differences between females and males in elementary and secondary education critical to future research and action.

Figure 1
CONCERNS FOR EDUCATIONAL EQUITY FOR WOMEN
BY THE PROCESSES OF EDUCATIONAL CHANGE

CONCERNS		PROCESSES				
		Legislation and Regulation	Program Revision and Program Innovation	Dissemination and Communication	Research and Evaluation	
<u>Student</u>	Enrollment					
	Portrayal in Educational Materials					
	Courses					
	Counseling					
	Athletics/Extracurricular Activities					
	Outcomes					
	Etc.					
<u>Professional</u>	Training					
	Employment					
	Salary					
	Governance					
	Etc.					

Source:

Adapted from M. Butler, "Development of Equality of Educational Opportunity Department," Far West Laboratory, June 1978.

USES. The information in this report will have many uses. Major uses include:

1. General reference for ascertaining the current status of girls and women in elementary and secondary education.
2. Baseline information for action groups that monitor the status of girls and women in education.
3. Statistical evidence for researchers seeking to understand the differential effects of education.
4. Documentation for making decisions and policies--such as goals and timetables for affirmative action, or the establishment of new programs.
5. Background information for a proposal concerning women's educational equity.
6. Proof of the need for the development of new strategies, methods, materials, and programs.

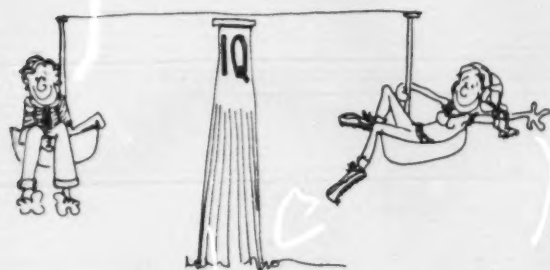


Although the statistics reported here provide important information, they are not the full answer to the questions we have concerning the status of girls and women in education. They can tell us about differences in the salary levels of women and men, or that boys have higher mathematics test scores than girls, or that girls make better grades than boys. The statistics alert us to the problem and give us a way of measuring change in the problem over time, but they do not explicate that problem, nor necessarily suggest

solutions. But used regularly and imaginatively, they should provide much information on women's educational equity.

SCOPE. This report includes information on students and education personnel at the elementary and secondary level. We emphasize national data, although we sometimes present it at the state level. Rather than be limited by geographic, membership, or other boundaries, we prefer broad surveys or studies. However, if a concern is considered important and there is information available, we have presented data based on a limited population. We favor recent data and have often sought updates of previous studies; however, some information is not current, and we urge you to consider that it may not reflect on the most recent situation. We choose to include data that reflect on ethnic groups, as well as the sexes, when such could be located.

Certain aspects of education are excluded. We chose to leave out information on cognitive differences. The literature on sex differences does not indicate that cognitive or motivational factors can account for the differential progress of women and men in education.² Consequently, we have focused on those statistics that mark the milestones of progress through the educational system.



One possible outcome of the development of this compendium may be to serve to point

to the need for additional or more recent information on those concerns we have specified. For instance, we found no indicators concerning counseling. There are indirect measures, such as the types of courses taken by males and females. However, we do not know if the advice of counselors is sought equally by both sexes, or if the quality of the counseling experiences are the same, or if the specific advice given is comparable. This compendium may also point to the need for additional concerns. We encourage you to give us your reaction so that later versions can include an updated, and possibly expanded, set of statistics.



DATA SOURCES. We relied on established Federal data sources such as those produced by the National Center for Education Statistics, the Commission on Civil Rights, the Equal Employment Opportunity Commission, and others. In addition, we used data gathered by professional associations such as the National School Board Association, the National Council of Administrative Women in Education, and

¹ This argument, as well as our approach, draws on the "social indicator" literature. See, for instance, Raymond Bauer's *Social Indicators*, DHEW's *Toward a Social Report*, Eleanor Sheldon and Wilbert Moore's *Indicators of Social Change*, Abbott Ferriss's *Indicators of Trends in American Education and Indicators of Trends in the Status of American Women*, OMB's *Social Indicators 1973 and 1976*, and William Paisley and Matilda Butler's

The Status of Education Research and Development in the United States: Databook 1976.

² There is a 95% overlap in the distribution of cognitive skills of females and males. The remaining difference is so small that it can be altered through training. See Frank Wesley and Claire Wesley's *Sex-Role Psychology*.

others. In some cases, we compiled information from existing directories. And when all these proved insufficient, we used books, monographs, and other reports containing pertinent information.

ORGANIZATION. We have organized the report according to concerns--student, and then professional. Information is first presented on student concerns of enrollment, role portrayal in instructional materials, courses, athletics and extracurricular activities, and outcomes (including grades, knowledge, aptitudes, graduation, intent to continue education, intended areas of future study, and attitudes). We then present information on the professional concerns of training, employment, salary, and governance.

This volume is the first of three. The second will focus on student concerns in post-secondary education with emphasis on higher education. The third volume will focus on professional concerns in post-secondary education, again with an emphasis on higher education. The sheer volume of information available has caused us to divide this material into three volumes. However, we believe the division will permit better access to that portion of the information that is of greatest interest to different audiences.

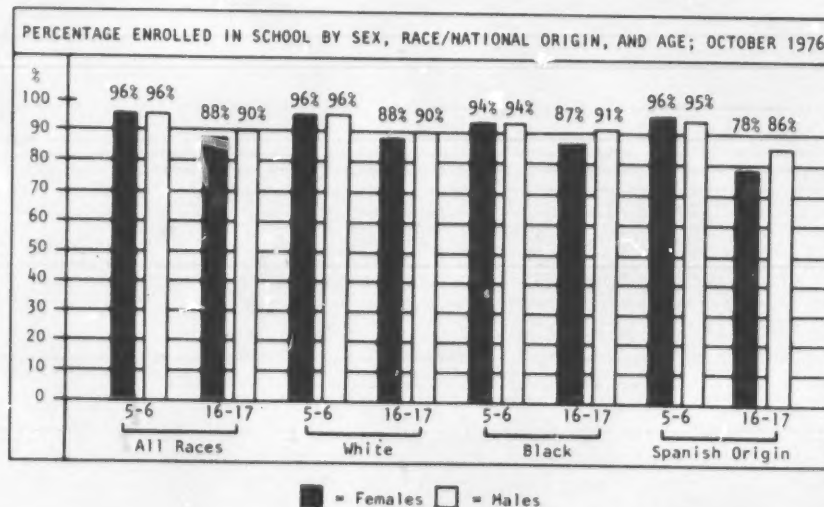
Student Concerns

Enrollment

As girls and boys enter the formal educational system, there are few differences in enrollment by either sex or race. The state compulsory school attendance laws enacted between 1852 and 1929¹ account for the large numbers of females and males in elementary and secondary schools. For five and six year olds, 96% of the females and 96% of the males are enrolled in school. This lack of difference continues until the end of high school, if data for individual races and national origins are disregarded. Specifically, by the time students are 16 and 17 years old, 88% of the females and 90% of the males are enrolled. However, we find that a lower percentage of those of Spanish origin are still in school. The difference is even greater for females (78%) than for males (86%). When we consider the combination of race and sex, we also find that black women are less likely to be enrolled than black men (87% versus 91%).

A close look at 15, 16, and 17-year-olds

who were not enrolled in school as of April 1, 1960 versus 1976 reveals some differences by racial and ethnic group, and by sex. The Mexican American (31%), Puerto Rican (30%), and Chinese American females (14%) in 1960 were more likely than males of their respective minority group (26%, 25%, 9%) to not be enrolled in school. On the other hand, American Indian and Alaskan Native (29%), Pilipino American (12%), and majority² males (18%) had higher non-enrollment rates than females of their respective group (24%, 7%, 12%). These differences between sexes, whether in favor of females or males, were about five percentage points. By 1976, there were few differences between the percentage of females and males not enrolled in school for each racial or ethnic group. The one exception is Puerto Rican females, who were three times as likely as Puerto Rican males to not be in school (16% versus 5%).



Source: U.S. Department of Commerce, Bureau of the Census, Current Population Reports, Series P-20, No. 309.

¹ All 50 states and the District of Columbia have passed state compulsory school attendance laws. Texas, however, has not had such a law since 1876, and Mississippi repealed its law in 1956.

² Majority refers to whites not of Hispanic origin. This is not the same as the term "white" used by the Census Bureau--white (Puerto Ricans and Mexican Americans are included in that group, but are separated here).

If the Pilipino American female and the Japanese American male are omitted, we find less non-enrollment in 1976 than 16 years earlier. In 1960, 7% of the Pilipino American females were not in school (this is somewhat lower than the 12% figure for majority females), and, in

Indian and Alaskan Native females was twice that of majority females. It was almost that high for black females (1.9). The rate for Mexican American and Puerto Rican females was 2.6 and 2.5 times as great as for majority females. For two of these groups--the American Indian and

PERCENTAGE AND RATIO OF 15, 16, AND 17 YEAR OLDS NOT ENROLLED IN SCHOOL
APRIL 1, 1960, AND 1976

Females	Percentage		Ratio	
	1960	1976	1960	1976
American Indians/Alaskan Natives	24%	15%	2.0	2.5 ^a
Blacks	23	6	1.9	1.0
Mexican Americans	31	14	2.6	2.3
Puerto Ricans	30	16	2.5	2.7
Japanese Americans	3	1	.3	.2
Chinese Americans	14	*	1.2	*
Pilipino Americans	7	10	.6	1.7
Majority	12	6	1.0	1.0
Males				
American Indians/Alaskan Natives	29%	14%	1.6	2.8
Blacks	21	7	1.2	1.4
Mexican Americans	26	11	1.4	2.2
Puerto Ricans	25	5	1.4	1.0
Japanese Americans	2	2	.1	.4
Chinese Americans	9	*	.5	*
Pilipino Americans	12	6	.7	1.2
Majority	18	5	1.0	1.0

* Not enough cases to report.

^a The ratios can be read as follows: The non-enrollment rate for American Indian/Alaskan Native females is 250% of the rate for majority females.

Source: Social Indicators of Equality for Minorities and Women. Washington, DC: U.S. Commission on Civil Rights, 1978.

1976, 10% were not in school (somewhat higher than the 6% for majority females). The percentage of Japanese American males not enrolled in school remains 2%. This is lower than the percentage of majority males at both years (18% and 5%).

To better assess such differences, we can compare the percentage minority to the percentage majority within each sex.¹ In 1960, the non-enrollment rate for American

Alaskan Native, and the Puerto Rican female--the non-enrollment rate was greater in 1976 than 1960. For instance, the American Indian and Alaskan Native female rate rose from 2.0 in 1960 to 2.5 in 1976. For the Mexican American female there was some improvement--2.6 in 1960, and 2.3 in 1976. Black females in 1976 had the same non-enrollment rate as the majority females.

¹ In the original report, all groups were compared with the majority male. For this report, we felt a comparison within sex to be more appropriate.

In general, minority males were not as different statistically from majority males as minority females were from majority females. In 1960, American Indian and Alaskan Native males had a non-enrollment rate 1.6 times as great as the majority males. This had increased considerably by 1976, when the non-enrollment rate for American Indian and Alaskan Native males was 2.8 times that of majority males. Mexican American males are the second minority group to increase their distance from majority males over this 16 year period. In 1960, they had a non-enrollment rate 1.4 times that of majority males, and by 1976, this rate was 2.2 times that of majority males.

A corollary to being enrolled is being enrolled in the appropriate grade. If a student is two or more years behind the modal grade, then she or he is defined as being delayed in the rate of progress through the educational system. For instance, a 17-year-old in the 10th or an earlier grade, rather than in the modal 12th grade, is behind in school. As the Commission on Civil Rights points out, "the delay rates reflect conditions that both result from and produce serious problems." Students not in the modal grade are more likely to cause trouble and to drop out of school than are others.

PERCENTAGE AND RATIO OF 15, 16, AND 17 YEAR OLDS TWO OR MORE YEARS BEHIND, THE MODAL GRADE FOR THEIR AGE, 1960 AND 1976.

	Percentage		Ratio	
	1960	1976	1960	1976
Females				
American Indians/Alaskan Natives	41%	26%	4.1	3.7 ^a
Blacks	25	15	2.5	2.1
Mexican Americans	33	24	3.3	3.4
Puerto Ricans	29	27	2.9	3.8
Japanese Americans	8	1	.8	.7
Chinese Americans	6	*	.6	*
Pilipino Americans	3	3	.3	.4
Majority	10	7	1.0	1.0
Males				
American Indians/Alaskan Natives	45%	32%	2.5	3.2
Blacks	36	23	2.0	2.3
Mexican Americans	41	28	2.3	2.8
Puerto Ricans	44	39	2.4	3.9
Japanese Americans	5	8	.3	.8
Chinese Americans	13	*	.7	*
Pilipino Americans	14	7	.8	.7
Majority	18	10	1.0	1.0

* Not enough cases to report.

^a The ratios can be read as follows: The delay rate for American Indian/Alaskan Native females is 370% of the rate for majority females.

Source: Social Indicators of Equality for Minorities and Women. Washington, DC: U.S. Commission on Civil Rights, 1978.



In both 1960 and 1976, majority² females were less likely to be behind than were majority males. This is true for all minority females with the exception of Japanese Americans in 1960. In that case, fewer males (5%) were behind in school than were females (8%).

The most striking differences are between the percentages of majority and minority within each sex. For instance, in 1960, 33% of the Mexican American females and 25% of the black females versus only 10% of the majority females were behind at least two years in school. Yet these two minority groups were closer to the majority than were the Puerto Ricans (29%), American Indians and Alaskan Natives (41%).

Since all groups changed over the 16 year period, we can assess the progress by comparing the percentage minority to the percentage majority within each sex. In 1960, the delay rate for American Indian and Alaskan Native females was 4.1 times as great as majority females. By 1976, the delay rate for this group had dropped to 3.7 times as great as majority females. In other words, although many American Indian and Alaskan Native females are still behind in school, they are not as far behind when compared to majority females as they were in 1960. Similar progress can be noted for black females. However, because the rate of change among majority females exceeded the rate of change among Mexican American females and Puerto Rican

females, we find these two groups are farther behind in 1976 than in 1960. For instance, the delay rate for Puerto Rican females was almost 3 times (2.9) greater than majority females in 1960, and it was almost 4 times greater (3.8) in 1976.

Minority males fared even less well over time than did minority females. The delay rate for American Indian and Alaskan Native, black, Mexican American, and Puerto Rican males increased between 1960 and 1976. Although a smaller percentage of males in these minority groups are behind their modal grade in 1976 than in 1960, their rate of change has not been able to match that of majority males.

Across all minority groups, the Japanese Americans, the Chinese Americans, and Filipino Americans have delay rates close to the majority. In fact, they are even less likely to be delayed than the majority. The American Indians and Alaskan Natives, blacks, Mexican Americans, and Puerto Ricans have considerably higher delay rates than do the majority. These two "better than" -- "worse than" clusters are consistent among the females and the males.

Portrayal in Instructional Materials

QUOTE:

And yet, in the schoolroom more than any other place, does the difference of sex, if there is any, need to be forgotten.

- Susan B. Anthony, 1922

By now, there has been considerable documentation concerning portrayals of females and males in the instructional materials used by elementary and secondary students. These readers, textbooks, and career education materials are an important aspect of the education filter since students spend approximately 14,000 hours with these materials by the time they com-

² Majority refers to whites who are not of Hispanic origin. This is not the same as the term "white" used by the Census Bureau because Puerto Ricans and

Mexican Americans are included in that group, but are separate here.

plete high school. A recent summary of the many studies of this literature noted that in the:

- **TEXT:** about 75% of the characters are boys and men, while only 25% are girls and women.
- **PICTURES:** about 75% of characters depicted are boys and men; 25% are girls and women.
- **TITLES:** more than 75% of characters mentioned in the titles are boys and men; fewer than 25% are girls and women.
- **OCCUPATION:** men are depicted in four times as many occupations as women.
- **THEMES:** boys and men express "male themes" such as achievement and ingenuity, while girls and women express "female themes" such as dependence and nurturance.¹



Two of the studies summarized in the occupation findings illustrate how instructional materials help to create different educational experiences for girls and boys. The research group, *Women on Words and Images*, conducted one study of elementary readers, and a second study of elementary, secondary, and post-secondary career materials. In their first study, *Dick and Jane as Victims*, they analyzed 34 readers published by 15

companies. Their tabulation of occupations shows that adult females had 26 different occupations (including witch, cleaning woman, and librarian) while adult males had 147 different occupations (including carpenter, sheriff and astronaut).

In the second study, *Help Wanted: Sexism in Career Education Materials*, *Women on Words and Images* examined 28 elementary school career-awareness materials and 56 secondary and post-secondary career-exploration materials. The results indicate a subtle form of stereotyping in which women make token appearances in many occupations. In this study, they found:

- For **SOCIAL SERVICE** occupations - 25 portrayals of women and 18 of men;
- For **MATHEMATICAL AND SCIENTIFIC** occupations - 18 portrayals of women and 43 of men;
- For **MANUAL** occupations - 70 portrayals of women and 216 of men;
- For **GOVERNMENT** occupations - 12 portrayals of women and 55 of men;
- For **COMMUNICATION** occupations - 39 portrayals of women and 120 of men;
- For **MEDICAL** occupations - 72 portrayals of women and 80 of men;
- For **BUSINESS** occupations - 89 portrayals of women and 145 of men.

Within each of these categories, women were shown primarily in "feminine" occupations and men were shown primarily in "masculine" occupations. For example, 4 women and 34 men were shown as managers while 27 women and 1 man were shown as secretaries (both listed as **BUSINESS** occupations). Seven women and 24 men were portrayed as doctors, while 19 women and no men were portrayed as nurses (both listed as **MEDICAL** occupations).

¹ See Matilda Butler and William Paisley's *Women and the Mass Media: Sourcebook for Research and Action*. New York: Human Sciences Press, 1979.

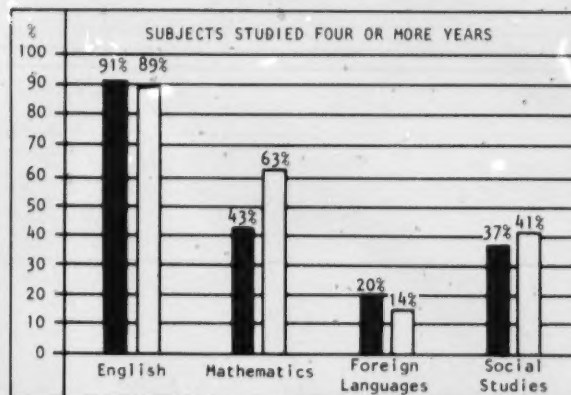
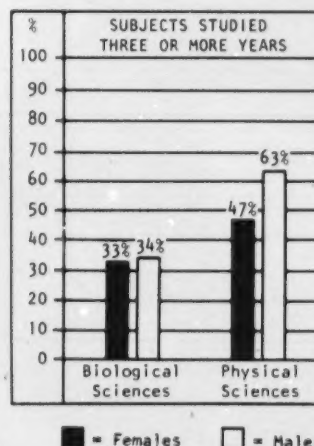
Portrayals such as these continue to shape the "images of potentiality"¹ of students in the elementary and secondary grades. They are one filter on adult expectations and experiences.

Courses

Counselors, peers, and parents help to influence decisions on which courses to take in high school. In elementary school, most children take similar classes. And even in a four year high school, the first year or two are dictated by graduation requirements. However, for those last two years, the time when more electives are allowed, there are differences in the courses taken by females and males.

Looking first at those in the college preparatory sequence, we find some of the expected similarities and differences. Data from the approximately one million seniors in 1978 intending to go on to college shows that females and males take a similar number of courses in four areas. Ninety-one percent of the females and 89% of the males have taken four or more years of English. Other areas where there are few differences include foreign languages (20% of the females versus 14% of the males have taken at least 4 years), biological sciences (33% of the females versus 34% of the males have taken at least 3 years), and social studies (37% of the females versus 41% of the males have

four or more years of mathematics² and 47% of the females and 63% of the males had taken three or more years of physical sciences.



Source: National Report: College-Bound Seniors, 1978. Evanston, IL: College Entrance Examination Board, 1978.



taken at least 4 years). However, males continue to show more courses in mathematics and physical sciences than girls. For the graduating class of 1978, 43% of the females and 63% of the males had taken

QUOTE:

Vocational education is one of the several education, economic, social, and political vehicles in the United States which have contributed to the problems of low pay and status for women in the world of work.

- Karla Atkinson, 1979

¹ Ronald Lippitt's phrase.

² These are self-reported figures.

Enrollment in vocational education courses continues to show major differences between the traditionally feminine and masculine fields. Females enroll primarily in consumer/homemaking, home economics related occupations, and office/business. Males enroll in technical, agriculture, and trade/industry. Distributive education has the most balanced enrollment (females 41% and males 59%). Recent figures indicate that males are moving into the female-dominated fields and females are moving into the male-dominated fields. However, when we look at subfields within each of the eight major categories, we find each sex is most likely to enroll in those courses that seem "appropriate". For instance, females enrolled in agriculture are more likely to be in courses in ornamental horticulture than in agricultural mechanics.

ENROLLMENT OF FEMALES AND MALES IN VOCATIONAL EDUCATION PROGRAMS, 1976

Program	Females	Males
Consumer/Homemaking	76%	23%
Home Economics		
Related Occupations	74	26
Health	70	30
Office/Business	61	39
Distributive Education	41	59
Trade/Industry	11	90
Agriculture	10	90
Technical	9	91

Source: Karla Atkinson. Eliminating Sex-Role Stereotyping in Vocational Education: A National and State Perspective. Kalamazoo, MI: Center for Women's Services, Western Michigan University, 1979.

PERCENT OF STUDENTS IN TRADITIONALLY MALE VOCATIONAL COURSES WHO ARE FEMALE



Source: Back-to-School Line-Up: Where Girls and Women Stand in Education Today. Washington, DC: PEER, 1979.

Athletics and Extracurricular Activities

QUOTE:

The overemphasis on protecting girls from strain or injury and underemphasis on developing skills and experiencing teamwork fits neatly into the pattern of the second sex. ... Girls are the spectators and the cheerleaders. ... Perfect preparation for the adult role of woman -- stand decoratively on the sidelines of history and cheer on the men who make the decisions.

- Kathryn Clarenbach, 1973

Title IX of the Education Amendments of 1972 has had a strong impact on the number of sports offered for both girls and boys. According to the regulations, by mid-1978 high schools receiving federal financial assistance were to have been providing equal opportunity in sports for both sexes. Because there is no actual requirement for identical treatment, we can expect to continue to see some differences.

Participation in sports is partially determined by availability. If, for instance, an elementary school offers "powder puff polo" for girls and football for boys, it is unlikely we will find girls participating in football. The same situation applies in the high school. Data for secondary level show that schools are less likely to offer a sport for females than for males, and that each sex is offered somewhat different sports.

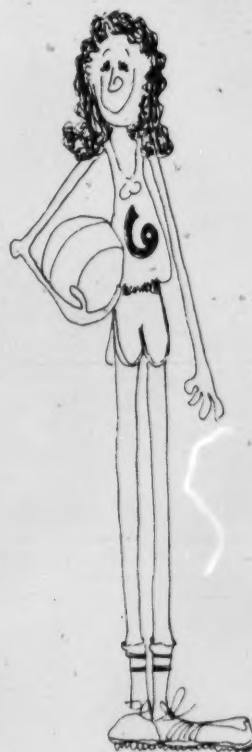
PERCENT OF HIGH SCHOOLS OFFERING TEAMS IN TEN MOST FREQUENTLY OFFERED SPORTS, 1974 AND 1979

	GIRLS			BOYS		
	1974	1979	% Change	1974	1979	% Change
Badminton	42	*	*	*	*	*
Baseball	*	*	*	69	69	0
Basketball	50	87	+37	86	98	+12
Cross Country	*	20	*	43	52	+9
Field Hockey	7	9	+2	*	*	*
Football	*	*	*	77	81	+4
Golf	9	14	+5	44	49	+5
Gymnastics	13	19	+6	*	*	*
Soccer	*	*	*	12	18	+6
Softball	23	37	+14	*	*	*
Swimming	13	18	+5	18	20	+2
Tennis	26	41	+15	35	46	+11
Track and Field	44	75	+31	73	92	+19
Volleyball	35	60	+25	*	*	*
Wrestling	*	*	*	40	50	+10
AVERAGE INCREASE			16%	8%		

* Not one of the ten most frequently offered sports in that year.

Source: National Federation of State High School Associations 1974-75 Handbook.
Elgin, IL: National Federation of State High School Associations, 1974.

National Federation of State High School Association 1978-79 Handbook.
Elgin, IL: National Federation of State High School Associations, 1978.



QUOTE:

I hope one day that little boys might say, 'When I grow up, I want to be a great basketball star-- just like my mother.'

- Lois Geraci Ernst
Commissioner, The
Women's Basketball
Association

swimming for girls and 20% offer it for boys. Tennis is offered for girls by 41% of the schools and for boys by 46% of the schools. The difference is greater for basketball and track and field. Eighty-seven percent of the schools offer basketball for girls versus 98% for boys. Similarly, 75% of the schools offer track and field for girls versus 92% for boys. Those sports with the greatest difference are cross country (20% for girls and 52% for boys) and golf (14% for girls and 49% for boys).

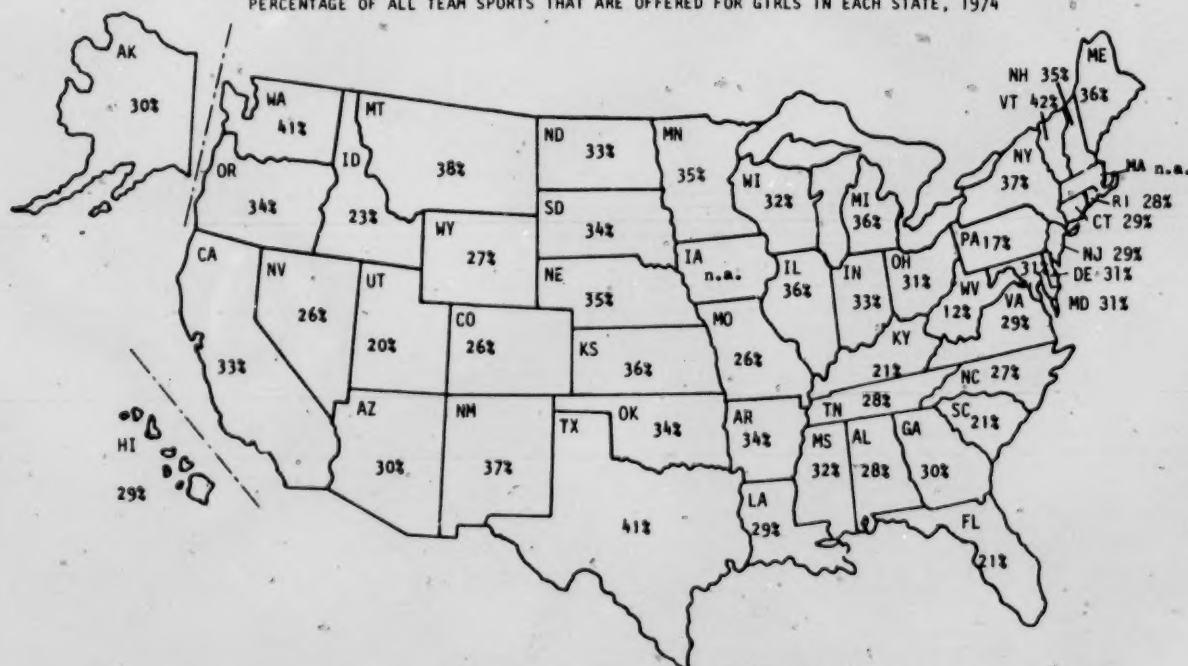
When we compare the 1974 and the 1978 percentages of schools offering certain team sports for girls and boys, we can see there have been many changes for girls (an average increase of 16 percentage points). Although it is not as great as for girls, it is still somewhat surprising to see how much change there has been for boys (an average increase of 8 percentage points). But in spite of the change, girls are still behind boys. Six of the ten most frequently offered sports are available for both sexes in 1978. Two of these--swimming and tennis--are offered for girls and boys by about the same percentage of schools. Eighteen percent of the schools offer

QUOTE:

We teach you the pleasure of physical exercise--the team-spirit of games, too, for when you leave school finally you will find that life is a game, sometimes serious, sometimes fun, but a game that must be played with true team-spirit --there is no room for the outsider in life.

- Shelagh Delaney, Sweetly Sings the Donkey, 1963.

PERCENTAGE OF ALL TEAM SPORTS THAT ARE OFFERED FOR GIRLS IN EACH STATE, 1974



Source: National Federation of State High School Associations 1973-74 Handbook.
Elgin, IL: National Federation of State High School Associations, 1974.

QUOTE:

Get into the game and stay in.
Throwing mud from the outside
won't help. Building up from
the inside will.

- Eleanor Roosevelt, 1924

A state-by-state comparison shows considerable differences. For instance, in 1974 Vermont was the "fairest" state--because 42% of its team sports were offered for girls. Texas and Washington were not far behind, with 41% for girls. At the other end of the continuum were Utah (20%), Pennsylvania (17%), and West Virginia (12%). In 1978, we find three states have a larger percentage of their team sports for girls than for boys--Iowa and South Carolina with 53% each, and Illinois with 52%. Alaska and Nevada each have 50% of their team sports for girls. Six states still have less than 40% of team sports for girls--Missouri and Washington with 39%, North Dakota with 38%, Delaware with 37%, Georgia with 35%, and West Virginia with 33%.

37%, Georgia with 35%, and West Virginia with 33%.

FACT:

"More than three times as many boys (3,819,930) as girls (1,179,406) participated on interscholastic high school teams during the 1974-75 school year."

- Janice Pottker and
Andrew Fishel, 1976

FACT UPDATE:

In 1978-79, more than twice as many boys (4,367,442) as girls (2,083,040) participated in interscholastic high school team sports.

- National Federation of
State High School Associations, 1978-79 Handbook

PERCENTAGE OF ALL TEAM SPORTS THAT ARE OFFERED FOR GIRLS IN EACH STATE, 1978



Source: National Federation of State High School Associations 1978-79 Handbook.
Elgin, IL: National Federation of State High School Associations, 1978.

QUOTE:

Interscholastic activities are laboratory courses in human relations as well as physical and emotional development. They are, in essence, 'The other half of education.'"

- Brice B. Durbin
Executive Director,
National Federation of
State High School
Associations, 1978.

It is tempting to ask the question, "Are there state championships for the same sports for both girls and boys." The answer is "sometimes." Some of the state championships seem to involve only girls' teams. Included in this category are archery, badminton, and field hockey. A few sports are dominated by girls. These include softball and volleyball. For three sports, no states offer championships for females. These are baseball, ice hockey, and wrestling. Three other sports are primarily for males--football, soccer, and decathlon. For some sports, an equal number of states have state championships for both girls and boys. Examples include fencing, skiing, tennis, and track.

FACT:

In 1974, "... only thirty-one percent of the total 161,775 high school teams are girls' teams."

- Janice Pottker and
Andrew Fishel, 1976

FACT UPDATE:

In 1978-79, approximately 40% of the 196,489 high school teams are girls' teams. If we exclude football teams (15,789 teams), then girls' team sports are 43% of the total.

- National Federation of
State High School
Associations, 1978-79
Handbook.

QUOTE:

Women who have had the regular experience of performing before others, of learning to win and lose, of cooperating in team efforts, will be far less fearful of running for office, better able to take public positions on issues in the face of public opposition. By working toward some balance in physical activity, we may begin to achieve a wholesome, democratic balance in all phases of our lives.

- Kathryn Clarenbach, 1974

STATE CHAMPIONSHIPS OFFERED FOR GIRLS AND BOYS
SPORT NUMBER OF STATE CHAMPIONSHIPS
Girls Boys

SPORT	Girls	Boys
Baseball	0	44
Ice Hockey	0	14
Wrestling	0	47
Archery	1	0
Decathlon/ Pentathlon	1	6
Football	1	43
Badminton	2	0
Fencing	2	2
Soccer	2	23
Bowling	6	3
Indoor Track	8	14
Skiing	10	10
Field Hockey	14	0
Gymnastics	30	26
Softball	31	1
Golf	33	49
Cross Country	36	49
Volleyball	39	5
Swimming	42	40
Basketball	49	50
Tennis	50	50
Track	51	51

Source: National Federation of State High School Associations, 1978-79 Handbook, Elgin, IL: National Federation of State High School Associations, 1978.

When questioned about their extracurricular activities, college-bound high school seniors indicated a range of activities. On the average, girls have a somewhat higher participation rate (36%) than boys (30%). Strong differences are found in specific activities. For instance, in athletics 58% of the females and 81% of the males said they were active. In journalism, theater, and social community clubs, however, girls are more active than boys. The figures seem to reflect the stereotype of each sex.



PERCENTAGE INVOLVED IN EXTRACURRICULAR ACTIVITIES BY SEX

Extracurricular Activities	Females	Males
Athletics (Including Intramural and Community)	58%	81%
Art, Music, Dance	53%	33%
Social, Community Clubs	50%	36%
Journalism, Debating, Dramatics	34%	25%
Student Government	27%	21%
N=	466,850	421,451

Source: National Report: College-Bound Seniors, 1978. Evanston, IL: College Entrance Examination Board, 1978.

Outcomes

There are several measures of educational outcomes for elementary and secondary school years. These include: grades, knowledge of content areas, aptitude test scores, graduation rates, intent to continue education, intended areas of future study, and attitudes.

FACT:

Girls have a higher grade point average than boys.

	♀	♀
3.5-4.00	32%	26%
3.0-3.49	32%	30%
2.5-2.99	23%	25%
Under 2.5	13%	20%

Source: National Report: College-Bound Seniors, 1978. Evanston, IL: College Entrance Examination Board, 1978.

GRADES

An important outcome indicator is the grade earned in each subject. We find, on the average, that girls make better grades than boys. Data from 1978 college bound seniors shows that, at least for this portion of twelfth graders, there is no evidence of acceptance of the myth that girls should "play dumb." At least, girls don't "play dumb" academically. In English and foreign languages, a considerably higher percentage of girls than boys make "A's." In biological sciences and social studies, a somewhat larger percentage of girls than boys make "A's." In mathematics, the percentage making "A's" is almost the same. Only in the physical sciences do a higher percentage of boys make "A's" than do girls.

PERFORMANCE OF 9- AND 17-YEAR OLDS ON THE NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS

	Citizenship		Social Studies		Writing		Reading		Science		Mathematics	
	Age 9	Age 17	Age 9	Age 17	Age 9	Age 17	Age 9	Age 17	Age 9	Age 17	Age 9	Age 17
Median % Items Correct	64.1	61.8	72.2	73.8	28.3	62.5	70.4	77.5	63.2	47.0	36.7	57.1
Girls	-0.2*	-0.4	-0.4	-0.6	+4.1	+3.0	+2.3	-1.9	-1.0	-2.4	-0.7	-2.2
Boys	+0.1	+0.4	+0.4	+0.6	-4.0	-3.4	-2.4	-2.0	+0.8	+2.8	+0.7	+2.3

* For example, girls averaged 63.9% of the items correct, which is .2% lower than the median. Boys averaged 64.2% of the items correct, which is .1% higher than the median.

Source: National Center for Education Statistics, Digest of Education Statistics, 1977-78 Edition.

REPORT CARD FOR GIRLS

	A	B	C*
English	43%	45%	12%
Mathematics	26%	39%	35%
Foreign Languages	42%	36%	22%
Biological Sciences	36%	41%	22%
Physical Sciences	28%	43%	28%
Social Studies	44%	41%	15%

REPORT CARD FOR BOYS

	A	B	C*
English	29%	48%	22%
Mathematics	27%	39%	34%
Foreign Languages	29%	36%	35%
Biological Sciences	33%	42%	25%
Physical Sciences	30%	42%	29%
Social Studies	41%	42%	17%

* Grade of C or less.

Source: National Report: College-Bound Seniors, 1978.
Evanston, IL: College Entrance Examination Board, 1978.

KNOWLEDGE

Another outcome indicator of interest is the knowledge score for particular subjects. In citizenship and social studies, we find few differences in knowledge between boys and girls, either for the 9-year-olds or for the 17-year-olds. In those areas requiring verbal skills--such as writing and reading--girls do better than boys, but over time, there is not as much difference. This may be explained by the greater numbers of both sexes who take 3 or 4 years of English in high school. On the other hand, in science and mathematics--two areas where girls take fewer courses than boys--the scores reflect even greater differences over time.

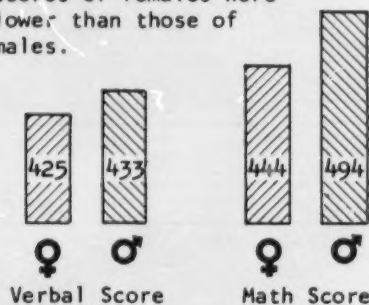
APTITUDE

The Scholastic Aptitude Test (SAT) taken by college-bound students shows males performing better than females in both the verbal and the mathematical scores. Whether one looks at those students at the top, or those at the bottom of their class, boys consistently score higher than girls.

On the other hand, females score better

FACT:

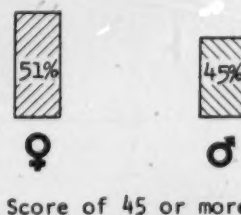
On the 1978 SAT, the scores of females were lower than those of males.



Source: National Report: College-Bound Seniors, 1978.
Evanston, IL: College Entrance Examination Board, 1978.

than males on the Test of Standard Written English (TSWE). The TSWE scores are used by colleges to place students in different level English courses.

TEST OF STANDARD WRITTEN ENGLISH SCORES

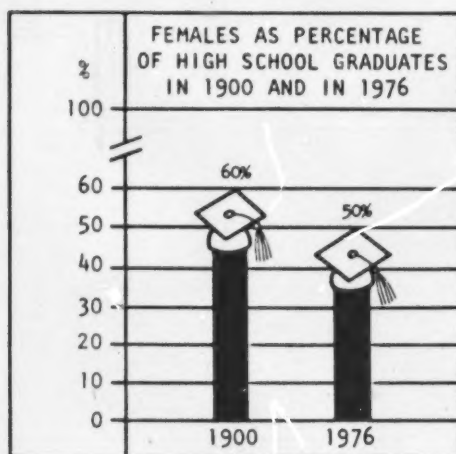


Source: National Report: College-Bound Seniors, 1978.
Evanston, IL: College Entrance Examination Board, 1978.

GRADUATION

Graduation from high school is a significant indicator for the concept of education as a critical filter. Are males and females completing school in equal proportion? Recent data provide an affirmative answer. In 1975-76, 1,417,000 girls and 1,419,000 boys graduated. Looking back three-quarters of a century to 1900, we find that girls were 60% of those graduating from high school. Perhaps somewhat surprising, it is not the females who

have caught up with males, but rather the males who have become a larger percentage of those completing the first 12 years of schooling.



Source: National Center for Education Statistics. *Statistics of Public Elementary and Secondary Day Schools*, Fall, 1976.

Noting what percentage of the graduating class is female or male gives us some information about those finishing the 12th grade, but it does not tell us what percentage of each sex completes high school. One way to find out is by looking at those who have reached an age when they should have finished high school, and to determine what percentage of each sex actually graduated.

If only majority females and males are considered we find almost identical percentages of graduates among the 20 to 24 years old. This was the case in 1960, and continues in 1976. Major differences, however, are found when looking at information on different minority groups. Only Japanese Americans, Chinese Americans, and Pilipino Americans have graduation rates just below greater than majority females and males. Puerto Ricans, American Indians/Alaskan Natives, and Mexican Americans are the farthest behind. Blacks are somewhat closer to the majority. There were dramatic changes in the percentages between 1960 and 1976 for all groups.

Minority groups who have a lower percentage than the majority for the same sex changed over time both in percentage points, and in the ratio of minority to majority graduates. For instance, in 1960 the completion rate for black females was 60%

that of majority females. By 1976, the completion rate for black females was 90% of majority females. Although the completion rate for both black females and males is now 90% that of the same sex majority, other minorities continue to show differences between the sexes. American Indian/Alaskan Native and Puerto Rican females are somewhat less likely to graduate--when compared to majority females--than are American Indian/Alaskan Native and Puerto Rican males compared to majority males.

PERCENTAGE OF 20 TO 24 YEAR OLDS WHO HAVE COMPLETED 12 OR MORE YEARS OF SCHOOL, 1960 AND 1976

	Percentage		Ratio	
	1960	1976	1960	1976
Females				
American Indians/Alaskan Natives	29	58	.4	.7*
Blacks	42	74	.6	.9
Mexican Americans	35	58	.5	.7
Puerto Ricans	24	60	.3	.7
Japanese Americans	84	99	1.2	1.2
Chinese Americans	82	90	1.2	1.0
Pilipino Americans	76	78	1.1	.9
Majority	70	86	1.0	1.0
Males				
American Indians/Alaskan Natives	33	70	.5	.8
Blacks	41	74	.6	.9
Mexican Americans	34	64	.5	.7
Puerto Ricans	24	68	.4	.8
Japanese Americans	89	98	1.3	1.1
Chinese Americans	84	88	1.2	1.0
Pilipino Americans	81	81	1.2	.9
Majority	69	87	1.0	1.0

* The ratios can be read as follows: The completion rate for American Indian/Alaskan Native females is 70% of the rate for majority females.

Source: *Social Indicators of Equality for Minorities and Women*. Washington, DC: U.S. Commission on Civil Rights, 1978.

INTENT TO CONTINUE EDUCATION

For those graduates who intend to go on to college, are there different aspirations for females than for males? The answer is "yes." When college-bound seniors were asked the highest level of education they planned to complete, females were more likely than males (41% versus 34%) to state a baccalaureat degree as their goal. Conversely, males were more likely than

females (45% versus 37%) to state a graduate degree.

DEGREE GOALS BY SEX, 1978

Degree	Females	Males
Two-Year Program or Degree	3%	5%
BA or BS	33%	29%
MA or MS	22%	24%
MD, PhD, Other Advanced Degree	15%	21%
Undecided	23	21
N =	474,049	430,697

Source: National Report: College-Bound Seniors, 1978.
Elgin, IL: College Entrance Examination Board, 1978.

INTENDED AREAS OF FUTURE STUDY

The thrust toward women receiving degrees in "feminine" subjects and men receiving degrees in "masculine" subjects is firmly established by the senior year in high school. Females emphasize Arts and Humanities (art accounting for most of the difference), Biological Sciences (nursing accounting for most of the difference), and Social Sciences (Education and Psychology accounting for most of the difference).

INTENDED AREAS OF COLLEGE STUDY BY SEX, 1978

Selected Fields of Study ^a	Females	Males
ARTS AND HUMANITIES	153	103
Architecture/Environmental Design	- ^b	3
Art	6	2
BIOLOGICAL SCIENCES/RELATED AREAS	28	19
Health and Medical	22	10
BUSINESS, COMMERCE, and COMMUNICATIONS	19	20
PHYSICAL SCIENCES/RELATED AREAS	6	26
Engineering	2	18
Physical Sciences	1	4
SOCIAL SCIENCES/RELATED AREAS	26	17
Education	11	4
Psychology	5	2
MISCELLANEOUS	6	7

^a For each major field of study, only subfields with at least a 3% difference in intentions between females and males are shown.

^b Less than 1%

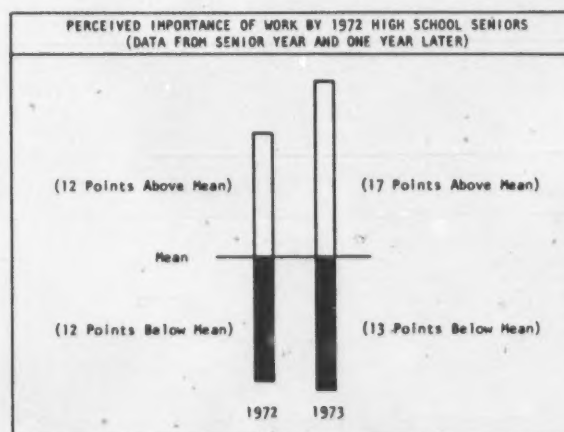
Source: National Report: College-Bound Seniors, 1978.
Elgin, IL: College Entrance Examination Board, 1978.

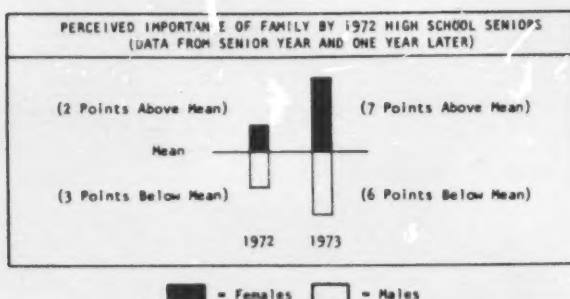
Each of these are traditional fields for women. Males, on the other hand, emphasize the Physical Science domain (Engineering and Physical Sciences accounting for most of the difference). Again, males move into traditional fields for men. Only Business/Commerce/Communications is chosen equally by females and males (19% and 20%).

ATTITUDES

The elementary and secondary school years are marked by different grades, knowledge levels, aptitudes, intentions for further education, and intended areas of future study for both males and females. Finally, one wonders what differences there are in attitudes. One pair of attitudes that may lead to different educational attainments are the perceived importance of work, and of family.

An ongoing longitudinal study of a national probability sample of high school seniors provides some interesting data. These seniors from the class of 1972 were asked about the importance of both work and family--at the beginning of their senior year, and one year later. Approximately 17,000 students responded in the first year, and about 21,000 responded the second year. Females proved less likely than males to value work. This difference becomes even stronger over time. Continuing the stereotype, females are more likely than males to value the family, and this difference also becomes stronger over time.





Source: National Longitudinal Study of High School Seniors: Group Profile on Self-Esteem, Locus of Control, and Life Goals. Washington, DC: NCES, 1977.

Another set of attitude items asked of approximately 8,000 17-year-old students points to future interpersonal relationships that may affect outcomes in the adult years. These students were given a number of guidelines that might be used by couples to develop ways of happily living together. The question was then posed as to which guidelines would lead to successful or unsuccessful relationships. Three of these guidelines reflect on the roles of women and men.



In each case, females were more likely than males to disagree with the guideline (the disagreement is the response judged "appropriate" by test consultants). This indicates that females accept the new sex roles to a greater extent than males. For two of the items there is not much difference in the response. However, there is a ten point spread between the sexes for the item, "The man should earn most of the income." Only about a third of the males gave the appropriate response, compared to almost half of the females.

Overall, it would seem that responsibility for care of children is not thought to be the domain of women. However, about half the students continue to believe that housework should be done by the woman, and more than half believe the man should have a higher income.



If these attitudes are later translated into behaviors, women may find themselves occupying two jobs (one at home and one at work), and holding lower paying jobs.

PERCENTAGE OF 17-YEAR-OLDS DISAGREEING WITH GUIDELINE. 1977.

Selected Guidelines	Disagreement by:	
	Females	Males
The woman should be solely responsible for care of the children.*	87%	84%
The woman should be responsible for keeping the house clean.*	56	59
The man should earn most of the income.*	47	37

* Disagreement with guideline was judged to be the appropriate response by National Assessment of Educational Progress consultants.

Source: "New Data from Basic Life Skills Study." NAEP Newsletter, December 1978.

Professional Concerns

Discrimination, bias, and sex role stereotyping affect the lives of professionals in elementary and secondary education just as much as they affect students. Professional concerns start at the point of training for their careers. Do women and men seek the same degrees, or do men pursue advanced degrees? Some of our questions about training--such as role models and textbooks--will be answered in Volume 2 of this compendium as we look more closely at higher education.

After training comes employment. In which occupations do we find both women and men? Are men and women evenly distributed across the range of occupations? Next, we look at the salary levels of women and men. And as the final concern of professionals, we will look at women and men in educational governance.

Training

The amount of education received by public school teachers has increased over the past decade. In 1965, 83% of the women and 65% of the men had not gone beyond the bachelor's degree. By 1975, the emphasis was shifting to additional education, and only 69% of the women and 49% of the men had not received an advanced degree. However, men are still more likely than women to have a master's degree, a professional diploma (requiring six years of study), or a doctorate. These percentages, of course, reflect on the amount of training for those currently teaching in public schools.

HIGHEST DEGREE RECEIVED BY PUBLIC SCHOOL TEACHERS

Highest Degree	1965-66 ^a		1975-76 ^b	
	Women	Men	Women	Men
Some College	10%	2%	- ^a	2%
Bachelor's Degree	73%	63%	69%	47%
Master's Degree	17%	32%	28%	47%
Professional Diploma	1%	3%	2%	4%
Doctor's Degree	-	-	1%	-

^a Less than 1%.

Source: a. Kenneth A. Simon and W. Vance Grant. *Digest of Educational Statistics*, 1970. Washington, DC: NCES, 1970.

b. W. Vance Grant and C. George Lind. *Digest of Educational Statistics*, 1977-78. Washington, DC: NCES, 1978.

FACT:

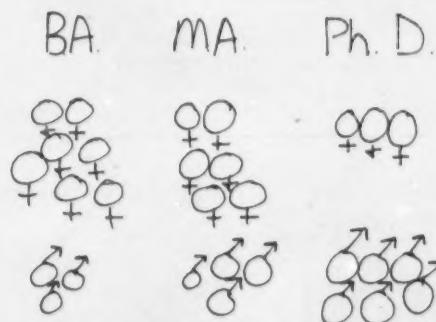
Male teachers earn more college credit while teaching than do female teachers. However, this gap is narrowing.

College credits earned in last three years:

	1971	1976
Women	57%	62%
Men	68%	65%

Source: Marsha A. Ream. *Status of the American Public School Teacher, 1975-76*. Washington, DC: National Education Association, 1977.

To have a more complete picture, we might ask what degrees are being awarded women and men in schools of education. Although not all teachers come from these schools, the majority do. When looking at the data, we find that in 1975-76 women earned 72% of BAs, 64% of MAs, and 33% of the Ph.Ds. This represents an increase for women at the Ph.D. level. However, back in 1949-50 education was not as much a "woman's field." Bachelor degrees were awarded equally to women and men (48% versus 52%). It is worth noting that in 1975-76 men received 28% of BAs and 67% of the Ph.Ds. The attrition of women from the BA to the Ph.D. is still pronounced in the mid-1970's for they received 72% of the BAs and only 33% of the Ph.Ds.



EARNED DEGREES IN EDUCATION

Year	Women			Men		
	BA	MA	PhD	BA	MA	PhD
1949-50	48%	40%	16%	52%	60%	84%
1959-60	71%	46%	19%	29%	54%	81%
1969-70	75%	55%	20%	25%	45%	80%
1975-76	72%	64%	33%	28%	36%	67%

Source: W. Vance Grant and C. George Lind. Digest of Education Statistics 1977-78. Washington, DC: NCES, 1978.

The 1975-76 degrees awarded in education represent a significant portion of all degrees awarded to women. They represent 27% of all BAs, 57% of MAs, and 33% of Ph.Ds

QUOTE:

...gentlemen... Do you not see that so long as society says a woman is incompetent to be a lawyer, minister or doctor, but has ample ability to be a teacher, that every man of you who chooses this profession tacitly acknowledges that he has no more brains than a woman?

- Susan B. Anthony, Speech at State Convention of School-teachers

for these years. The education degrees awarded to men represent a smaller percentage of the total earned by men. They are 8% of all BAs, 27% of MAs, and 20% of Ph.Ds.

Employment

With formal training completed, those planning on careers in elementary or secondary education then seek positions. By 1975, there were more than three and a half million people employed in elementary and secondary education. In what occupations do we find the women and men? Of the women, few are found in the decision-making positions of administrator, principal or assistant principal. However, 36% are elementary teachers, 18% secondary teachers, 11% other teachers and professionals, 9% are teacher aides, and another 25% work outside the classroom. Of the men, 10% are in the three decision-making positions, 13% ele-

mentary teachers, 38% secondary teachers, 9% are other teachers and professionals, 1% are teacher aides, and another 27% work outside the classroom. Among the professional staff, men dominate in the positions of power, and as secondary school teachers. Women, conversely, are primarily elementary school teachers.



OCCUPATIONAL DISTRIBUTION OF FULL-TIME EMPLOYEES IN PUBLIC ELEMENTARY AND SECONDARY EDUCATION BY SEX, 1975

Occupation	Women	Men
Administrators	*	3%
Principals	*	5%
Assistant Principals	*	2%
Elementary Teachers	36%	13%
Secondary Teachers	18%	38%
Other Teachers/Professionals	11%	9%
Teacher Aides	9%	1%
Clerical/Secretarial Workers	10%	*
Service Workers	14%	20%
Others	1%	7%

* Less than 1%.

Source: Employment Opportunity in the Schools: Job Patterns of Minorities and Women in Public Elementary and Secondary Schools, 1975. Washington, DC: U.S. Equal Employment Opportunity Commission, 1977.

OCCUPATIONAL DISTRIBUTION OF FULL-TIME WOMEN EMPLOYEES

Occupation	All	White	Black	Spanish American	Asian American	American Indian
Administrator	*	*	*	*	*	*
Principal	*	*	*	*	*	*
Assistant Principal	*	*	*	*	*	*
Elementary Teacher	36%	38%	30%	22%	45%	24%
Secondary Teacher	18%	19%	14%	10%	16%	11%
Other Teachers/ Professionals	11%	12%	11%	7%	11%	8%
Teacher Aide	9%	7%	14%	31%	9%	28%
Clerical/Secretarial Worker	10%	10%	5%	10%	10%	10%
Service Worker	14%	12%	22%	17%	6%	15%
Other	1%	1%	2%	2%	2%	3%

* Less than 1%.

Source: Employment Opportunity in the Schools: Job Patterns of Minorities and Women in Public Elementary and Secondary Schools, 1975. Washington, DC: U.S. Equal Employment Opportunity Commission, 1977.

Looking at the occupational distribution of women, we find some differences among the different ethnic groups. White women are most likely to be elementary and secondary teachers, black women elementary teachers and service workers, Hispanic women teacher aides and elementary teachers, Asian American women elementary and secondary teachers, and American Indian women secretaries and elementary teachers.

FACT:

Number of women employed full-time in elementary/secondary education:

2,317,306 women
1,904,686 white women
332,710 Black women
60,979 Hispanic women
10,785 Asian American women
8,146 American Indian women

Source: Employment Opportunity in the Schools: Job Patterns of Minorities and Women in Public Elementary and Secondary Schools, 1975. Washington, DC: U.S. Equal Employment Opportunity Commission, 1977.

Do these figures indicate a pattern of discrimination? According to the US Equal Employment Opportunity Commission, the answer is "yes." They suggest that an index of discrimination can be developed by multiplying the percent of women in the

workforce (39.4%) by the actual number of people employed in a particular occupation. This becomes the expected number of female employees for that occupation. Then, the actual number of women employed in the occupation is divided by the expected number of women employees. This value becomes the Index of Discrimination (ID). An ID that is at or near 1 indicates that women are employed at close to the expected ratio --in other words, there is little discrimination. An ID value of less than 1 indicates discrimination. The lower the number under 1, the greater the discrimination. For instance, the ID for principals is .3. This means that women were only 30% of their expected employment as principals. However, there is another type of discrimination. An ID value greater than 1 also suggests discrimination. The higher the number over 1, the greater the discrimination. However, in this case it represents too many women in a given occupation. For instance, the ID for teacher aides is 2.4. This means that there are 240% as many women as teachers aides as would be expected in accordance with their presence in the workforce.

According to these ID values, women are too frequently absent as principals, officials, and assistant principals, and are all too frequently present as elementary teachers, teacher aides, and secretaries.

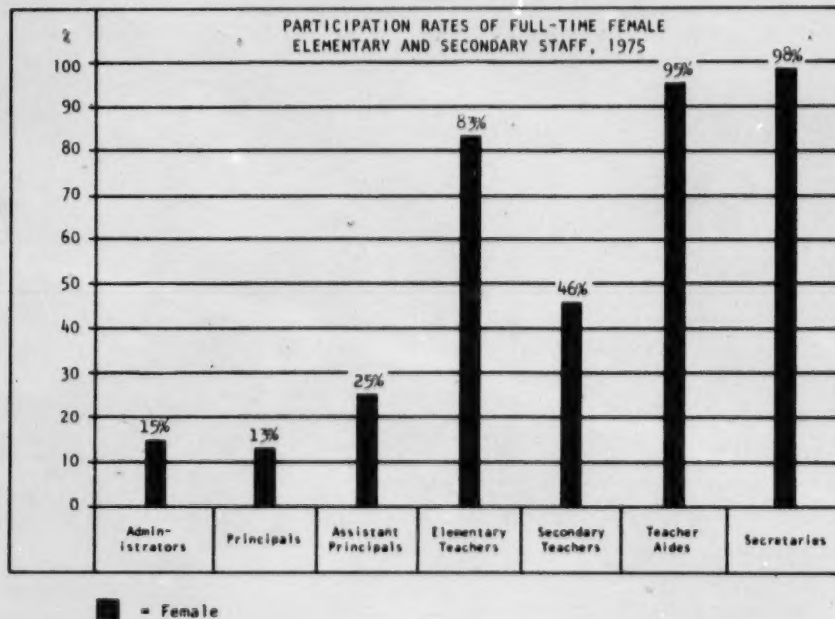
RANKING OF OCCUPATIONS BY INDEX OF DISCRIMINATION AGAINST
FULL-TIME WOMEN EMPLOYEES IN PUBLIC ELEMENTARY AND
SECONDARY EDUCATION, 1975

Occupation	Actual Number of Women Employed	Expected Number of Women Employed	Index of Discrimination
Principal	9,270	17,024	.3
Official	6,518	28,480	.4
Assistant Principal	8,292	15,475	.5
Secondary Teacher	413,702	355,428	1.2
Service Worker	319,537	228,617	1.4
Other Teacher/ Professional	260,381	148,793	1.8
Elementary Teacher	836,383	395,828	2.1
Teacher Aide	212,083	87,877	2.4
Clerical/Secretarial Worker	224,797	90,680	2.5

Source: Employment Opportunity in the Schools: Job Patterns of Minorities and Women in Public Elementary and Secondary Schools, 1975. Washington, DC: U.S. Equal Employment Opportunity Commission, 1977.

Although it is appropriate to look at the distribution of women and men across the entire range of occupations, it is also helpful to look at each occupation to see what percentage are female and male. This

participation rate analysis shows women to be a smaller percentage of the top three positions, about half the secondary teachers, and almost all of the elementary teachers, teacher aides, and secretaries.



Source: Employment Opportunity in the Schools: Job Patterns of Minorities and Women in Public Elementary and Secondary Schools, 1975. Washington, DC: U.S. Equal Employment Opportunity Commission, 1977.

The lack of women in positions of authority at the building level has been frequently noted. Although we lack information from the mid- or late 1970s, we do have it from 1972-1973. If you were a woman and wanted to be a principal, your chances were best at the elementary level. Few women had this position in junior or senior high schools.

PERCENTAGE DISTRIBUTION OF
PRINCIPALS BY SEX, 1972-73

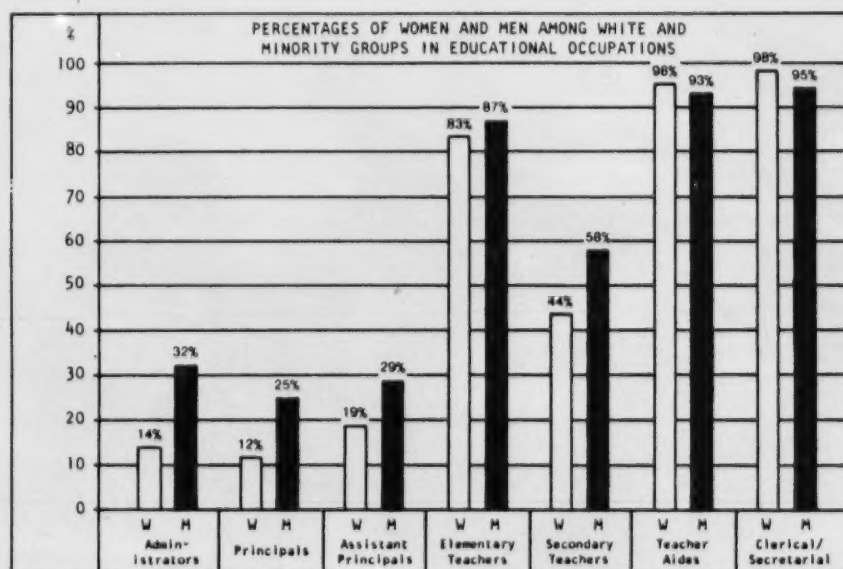
Principals	Female	Male
Elementary Schools	20%	80%
Junior High Schools	3%	97%
Senior High Schools	1%	99%

Source: Why Aren't Women Administering Our Schools? Suzanne Howard. NCAWE, 1975.

Minorities are under-represented in most educational occupations, but it is interesting to note that there are proportionately more minority women than white women in all educational occupations except teacher aides and clerical/secretarial workers. For example, minority women are 32% of all minority administrators,

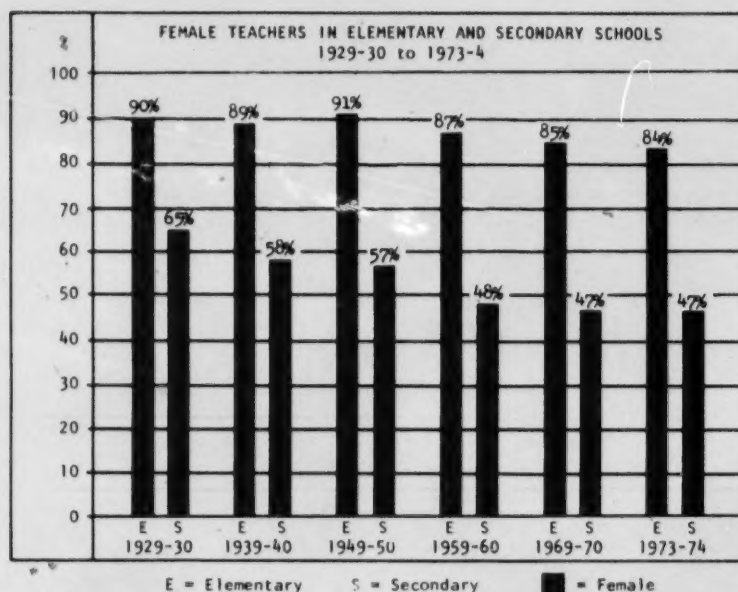
while white women are only 14% of all white administrators. These proportional differences are greatest for the occupations of administrator (18%), secondary teacher (14%), principal (13%), and assistant principal (10%). The differences are negligible for elementary teachers, teacher aides, and clerical/secretarial workers (3-4%).

When looking at information on the status of women in the mid-1970s, it is difficult to determine if the present representation of women in various occupations represents a gain or loss when compared to previous data. Fortunately, we do have information on the percentage of women and men who were teachers in elementary and secondary schools from 1929-30 to 1973-74. For those teaching in elementary schools, there seems to have been little change over nearly half a century. In 1929-30, women were 90% of all elementary school teachers, and by 1973-74, women represented 84% of such teachers. However, there has been change at the secondary school level. In 1929-30, women were 65% of all secondary teachers. By 1973-74, this figure had decreased by a third to 47%.



W = White M = Minority

Source: Employment Opportunity in the Schools: Job Patterns of Minorities and Women in Public Elementary and Secondary Schools, 1975. Washington, DC: U.S. Equal Employment Opportunity Commission, 1977.



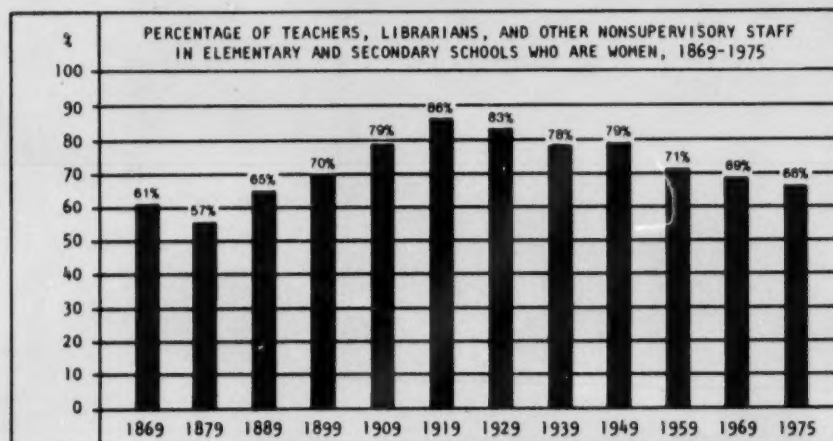
Source: W. Vance Grant and C. George Lind. *Digest of Educational Statistics, 1977-78*. Washington, DC: National Center of Education Statistics, 1978.

Going back into history even farther, we are able to find parallel data for the category of teachers, librarians, and other nonsupervisory staff from 1869 to 1975. There is surprisingly little change during the approximately 100-year period. In 1869 women constituted 61% of those employed in this category, and in 1975 they represented 66%. However, there are major differences across this century, with women reaching a low of 57% in 1879 and a high of 86% in 1919.

QUOTE:

The acceptance of women as authority figures or as role models is an important step in female education. . . . It is this process of identification, respect, and then self-respect that promotes growth.

- Judy Chicago, 1975



Source: Kenneth A. Simon and W. Vance Grant. *Digest of Educational Statistics, 1970*. Washington, DC: National Center for Education Statistics, 1970. (For years 1869-1969)

Employment Opportunity in the Schools: Job Patterns of Minorities and Women in Public Elementary and Secondary Schools, 1975. Washington, DC: U.S. Equal Employment Opportunity Commission, 1977.

Available information does not tell us why there are so few women as principals. Historical data indicate there were more women in this occupation in 1960 than 1975. One can only conjecture as to possible reasons. Perhaps those women who were principals in 1960 began their careers up the ladder of administration during World War II, when women's contributions were needed and valued. Most of these women would have retired by 1975. The next cohort that should have started up the ladder in the 1950s may not have sought those positions as they moved away from leadership roles after the war.

FACT:

Women were 37% of the principals in 1960.^a But by 1975,^b women were only 13% of the principals.

Source: a) Why Aren't Women Administering Our Schools? Suzanne Howard. NCME, 1975. b) Employment Opportunity in the Schools: Job Patterns of Minorities and Women in Public Elementary and Secondary Schools, 1975. Washington, DC: U.S. Equal Employment Opportunity Commission, 1977.

In 1975, women were 64% of those employed in education. However, they were not 64% of those employed in each occupational category. Furthermore, women fared differently in individual states. Even focusing on just four categories--administrators, principals, elementary teachers, and secondary teachers--we find some states have relatively high percentages of women, while others show relatively low percentages. For instance, women are 25% of the administrators in Alaska and 23% in Tennessee, but they comprise only 5% of the administrators in Nebraska and North Dakota, and 6% in Idaho, Kansas, and Montana. There is a 20 point difference between the states indicating the highest and lowest percentages.

There is an even greater disparity between states in the category of principals. Women are 30% of the principals in Maryland, 26% in West Virginia, and 20% in Florida and Vermont. States registering the lowest percentages are Utah (2%), North Dakota (3%), and Iowa, Kansas, Nevada and Oregon (6%). There is a 28 point spread between the state with the highest percentage of women and the state with the lowest.

According to both stereotype and fact, elementary teachers are primarily women. But what differences do we find in the individual states? Those with the highest percentage of female elementary teachers are Alabama and Arkansas (94%) and Mississippi, South Carolina, and Texas (92%). States with lower percentages include Arizona (72%), Maine (73%), Montana (74%), and New York and Oregon (75%). There is a 22 percentage point difference between the highest and lowest states.

In comparison to elementary teachers, secondary teachers seem less likely to be females. Those states with the highest percentages of women are South Carolina (64%), Alabama (60%), North Carolina (60%), and Virginia (60%). Lowest percentage states for women as secondary teachers are Minnesota (33%), Montana (33%), North Dakota (34%), and Utah (34%).

QUOTE:

I ask no favors for my sex. I surrender not our claim to equality. All I ask of our brethren is that they will take their feet from off our necks, and permit us to stand upright on the ground which God has designed us to occupy.

- Sarah Grimke, 1837

The most recent information on employment in the occupational categories is for 1977. Although categories differ somewhat from the 1975 study, we can look across the states and still see considerable variability. For instance, women are 33% of the superintendents and assistant superintendents in Washington, DC, 24% in Hawaii, 23% in North Carolina, and 22% in Florida. Eighteen of those states reporting data indicate there are 1% or fewer women as superintendents/assistants. These are Alaska, Colorado, Delaware, Idaho, Iowa, Maine, Minnesota, Missouri, Montana, Nebraska, New Mexico, North Dakota, Oklahoma, Pennsylvania, South Dakota, Texas, Vermont, and Washington. There is a 32 point difference between the states with the highest and lowest percentages.

As with the 1975 data, there is an even greater disparity between states in the category of principals and assistant principals. Women are 52% of this category in Washington, DC, 24% in Florida, and 23% in

Hawaii. States with the lowest percentages are Utah (3%), Iowa (6%), North Dakota (6%), Indiana (7%), and Minnesota (7%). This represents a 49 point difference between the states with the highest and lowest percentages.

The 1977 data combine elementary and secondary teachers. In six states, women are more than three-fourths of the classroom teachers. These states are Washington, DC (80%), South Carolina (79%), North Carolina (78%), Hawaii (76%), Louisiana (76%), and

PERCENT OF ADMINISTRATORS, PRINCIPALS, ELEMENTARY TEACHERS,
AND SECONDARY TEACHERS WHO ARE FEMALE BY STATE, 1975

State	Administrators	Principals	Elementary Teachers	Secondary Teachers
Alabama	18%	15%	94%	60%
Alaska	25	11	76	44
Arizona	32	12	72	40
Arkansas	14	18	94	57
California	17	14	79	39
Colorado	15	8	81	43
Connecticut	9	12	80	44
Delaware	18	9	84	44
Florida	19	20	88	53
Georgia	22	13	91	59
Idaho	6	9	84	40
Illinois	13	12	80	44
Indiana	13	7	81	42
Iowa	7	6	88	36
Kansas	6	6	82	42
Kentucky	19	10	84	56
Louisiana	19	14	89	58
Maine	14	8	73	37
Maryland	17	30	88	50
Massachusetts	17	16	82	43
Michigan	11	15	83	41
Minnesota	9	7	80	33
Mississippi	18	15	92	58
Missouri	10	12	89	49
Montana	6	7	74	33
Nebraska	5	14	89	43
Nevada	18	6	80	41
New Hampshire	21	10	80	43
New Jersey	15	12	78	43
New Mexico	12	11	84	46
New York	15	15	75	41
North Carolina	16	9	89	60
North Dakota	5	3	78	34
Ohio	20	12	84	42
Oklahoma	10	10	90	51
Oregon	19	6	75	35
Pennsylvania	11	9	81	42
Rhode Island	18	17	86	41
South Carolina	19	12	92	64
South Dakota	16	10	87	41
Tennessee	23	10	89	56
Texas	18	13	92	56
Utah	13	2	77	34
Vermont	18	20	83	41
Virginia	16	18	90	60
Washington	12	5	75	35
West Virginia	14	26	87	53
Wisconsin	8	10	79	38
Wyoming	9	7	82	35

Source: Employment Opportunity in the Schools: Job Patterns of Minorities and Women in Public Elementary and Secondary Schools, 1975. Washington, DC: U.S. Equal Employment Opportunity Commission, 1977.

Mississippi (76%). The states with the lowest percentages of female teachers are

Utah (55%), Washington (56%), Oregon (56%), and Minnesota (56%).

PERCENT OF SUPERINTENDENTS AND ASSISTANTS, PRINCIPALS AND ASSISTANTS, AND CLASSROOM TEACHERS WHO ARE FEMALE, BY STATE, 1977

State	Superintendents and assistants	Principals and assistants	Classroom teachers
Alabama	NA	NA	NA
Alaska	12	12	62
Arizona	4	11	63
Arkansas	2	17	76
California	3	19	62
Colorado	1	13	63
Connecticut	19	14	63
Delaware	-	15	61
District of Columbia	33	52	80
Florida	22	24	71
Georgia	NA	NA	NA
Hawaii	24	23	76
Idaho	1	9	62
Illinois	4	9	63
Indiana	5	7	62
Iowa	-	6	62
Kansas	NA	NA	NA
Kentucky	5	9	71
Louisiana	4	15	76
Maine	1	14	58
Maryland	NA	NA	NA
Massachusetts	NA	NA	NA
Michigan	NA	NA	NA
Minnesota	1	7	56
Mississippi	3	15	76
Missouri	1	12	70
Montana	1	8	58
Nebraska	1	16	67
Nevada	NA	NA	NA
New Hampshire	3	9	62
New Jersey	7	14	64
New Mexico	1	13	65
New York	4	16	59
North Carolina	23	13	78
North Dakota	-	6	60
Ohio	3	13	64
Oklahoma	1	11	70
Oregon	3	10	56
Pennsylvania	1	9	59
Rhode Island	2	14	62
South Carolina	4	14	79
South Dakota	1	11	64
Tennessee	NA	NA	74
Texas	-	14	74
Utah	2	3	55
Vermont	1	19	61
Virginia	NA	NA	NA
Washington	1	8	56
West Virginia	2	21	70
Wisconsin	NA	10	60
Wyoming	NA	8	59

- Less than 1%

NA: Not available

Source: National Center for Educational Statistics. *Statistics of Public Elementary and Secondary Day Schools*. Washington, DC: U.S. Government Printing Office, 1979.

FACT:

Teachers with male principals:

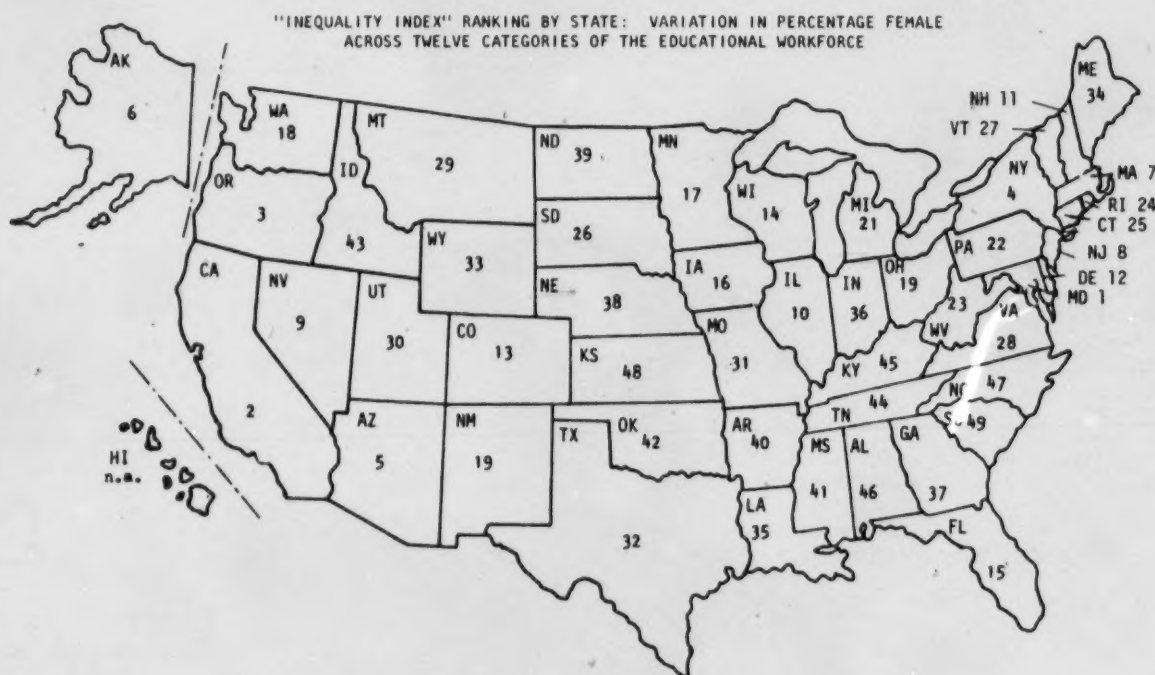
	1971	1976
Elementary	80%	83%
Secondary	99%	98%

Source: Marsha A. Ream. Status of the American Public School Teacher, 1975-76. National Education Association Research, 1977.

Since the female percentages vary by occupational category, district size, and state, we can compute informative "inequality indexes" of two kinds. The first is a discrimination index¹ that reflects under- and over-representation of women across occupational categories per district size level or state. The second is a variability index computed from the variance in

percentage female in a given occupational category across district size levels or states.

The discrimination index reflects under- and over-representation relative to the total percentage of females in the educational workforce of a given district size level or state. For example, women comprise 74% of the educational workforce in Alabama. If there were no discrimination by occupational category, they would also be 74% of the educational administrators in Alabama, 74% of the principals, 74% of the elementary teachers, etc. In fact, women are only 18% of the administrators and 15% of the principals in Alabama, whereas they are 94% of the elementary teachers. A standard deviation computed from under- and over-representation in all 12 occupational categories places Alabama in the 46th rank among states on the discrimination index (i.e., 45 other states have less under- and over-representation across the occupational categories).



Source: Employment Opportunity in the Schools: Job Patterns of Minorities and Women in Public Elementary and Secondary Schools, 1975. Washington, DC: U.S. Equal Employment Opportunity Commission, 1977.

¹ "Discrimination" here refers not only to hiring and promotion but also to sex differences in socializa-

tion and professional training that direct women and men into the different occupational categories.

The variability index is computed from differences across states or district size levels in the percentage female in a given occupational category. For example, women comprise 83% of elementary teachers nationwide. From state to state, the female percentage among elementary teachers varies from 72% to 94%, making this one of the more consistent occupational categories (rank ordered third). By contrast, the female percentage among school psychologists nationwide is 52%, while the percentage female among school psychologists by state varies from 86% in Mississippi to 13% in Wyoming. The pattern of variance across all states makes school psychologist the least consistent occupational category (rank ordered thirteenth).

The detailed computation of these indexes appears in the appendix.

VARIABILITY RANK FOR PROFESSIONAL OCCUPATIONAL CATEGORIES

Occupation	Rank
Administrator, Officer, and Manager	1
Principal	2
Elementary Teacher	3
Total Educational Workforce	4
Other Classroom Teacher	5
Other Professional Staff	6
Librarian and Audio-visual Staff	7
Assistant Principal, Non-teaching	8
Secondary Classroom Teacher	9
Consultant and Supervisor of Instruction	10
Assistant Principal, Teaching	11
Guidance Counselor	12
Psychologist	13

Note: 1 = category with least variability from state to state
13 = category with most variability from state to state.

Source: Employment Opportunity in the Schools: Job Patterns of Minorities and Women in Public Elementary and Secondary Schools, 1975. Washington, DC: U.S. Equal Employment Opportunity Commission, 1977.

What kinds of courses do they teach? At the secondary school level there is some differentiation. Women are most likely to teach English (26%), Home Economics (13%), Mathematics (13%), and Social Studies (10%). Less than 1% teach Agriculture and Industrial Arts. Men are most likely to teach Social Studies (19%), Science (16%), Mathematics (15%), and English (11%). Less than 1% teach Home Economics.

PERCENTAGE SECONDARY SCHOOL TEACHERS BY TEACHING FIELD AND SEX 1965-66

Field	Women	Men
Agriculture	*%	3%
Industrial Arts	*%	9%
Art	3%	2%
Music	4%	5%
Science	5%	16%
Health/PE	7%	7%
Foreign Language	9%	4%
Business Education	10%	5%
Social Studies	10%	19%
Home Economics	13%	*%
Mathematics	13%	15%
English	26%	11%
Other	*%	4%

* = Less than 1%

Source: Digest of Education Statistics, 1970. Washington, DC: National Center for Education Statistics, 1970.



Salary

Because all states have salary schedules there cannot be wide variation between the salaries of women and men. However, women do consistently earn less than men and have fallen farther behind in the last few years. In 1961, female teachers earned 92% of a man's salary. A woman teaching in the elementary or secondary schools in that year earned \$5,120 as compared to \$5,568 for a man. In 1965-66, female teachers earned 91% as much as male teachers. A woman teaching in that year earned \$6,077 as compared to \$6,680 that the man earned. In 1971-72, female teachers earned 92% as much as male teachers. A woman teaching in

QUOTE:

We want rights. The flour-merchant, the housebuilder, and the postman charge us no less on account of our sex; but when we endeavor to earn money to pay all these, then, indeed, we find the difference.

- Lucy Stone, 1855

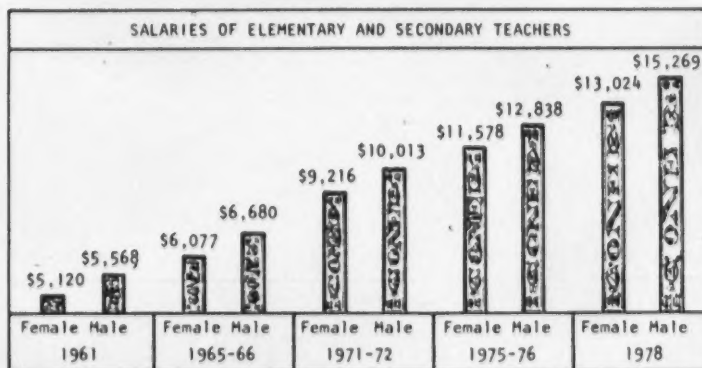
FACT:

Male teachers earn more "additional" pay than do female teachers.

	School System Employment		Outside Employment	
	Summer	Extra Pay	Summer	School Year
Women	8%	12%	9%	4%
Men	21%	48%	30%	15%

Source: Marsha A. Ream. Status of the American Public School Teacher, 1975-76. Washington, DC: National Education Association, 1977.

that year earned \$9,216 as compared to the \$10,018 earned by a man. In 1975-76, female teachers earned 90% as much as male teachers. A woman teaching in that year earned \$11,578 as compared to the \$12,838 for a man. In 1978, female teachers earned 85% as much as male teachers. A woman teaching in that year earned \$13,024 as compared to the \$15,269 for a man.



Source: a. Marsha A. Ream. Status of the American Public School Teacher, 1975-76. Washington, DC: National Education Association, 1977.

b. Digest of Educational Statistics, 1970. Washington, DC: National Center for Education Statistics, 1970.

c. Exploitation From 9 to 5. Report of the Twentieth

Century Fund Force on Women and Employment. New York: Lexington, 1975.

d. Digest of Education Statistics, 1977-78. Washington, DC: National Center for Education Statistics, 1978.

e. Unpublished Data, Spring 1978. National Education Association.

Governance

For some time now it has been a maxim that the higher one goes in education, the fewer women one finds. This is particularly true in educational governance where few of those in policymaking positions are female. For instance, women are 8% of the Chief State School Officers, 15% of the principal officers in state education agencies, and 17% of presidents of the American Federation of Teacher's locals. This pattern is an old one. For instance, when the National Education Association began in 1857, women could only hold honorary membership. A decade later, that constitution was changed and women could become regular members. However, it was 53 years after the founding of the organization that a woman became president of NEA. At that time, women were about 80% of all elementary and secondary teachers, librarians, and other nonsupervisory staff.

QUOTE:

The time has come when it is simply brutal ignorance that excludes women from the school boards, and if political parties won't accept women as candidates, the good people of all parties should unite to elect women to every ward board of the city.

Source: "Women School Directors,"
School Board Journal, Vol.
11, No. 1, May 1891.

FACT:

For the past half century, women have been approximately 11% of the school board members.

Source: Women on School Boards. Evanston, IL: National School Board Association, 1974.

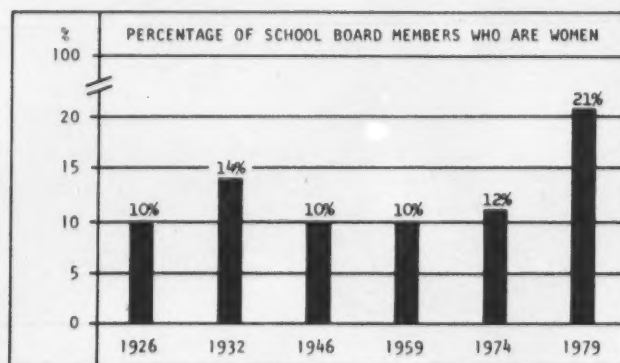
FACT UPDATE:

In 1979, a survey of school boards indicates women are approximately 21% of the members.

Source: The Fifty State School Boards Associations, 1979. Washington, DC: National School Boards Association, 1979.

Looking at more recent evidence of women as decisionmakers, we find that in 1974 women were 12% of the school board members. This represented little change from 1926 when female school board membership stood at 10%. However, by 1979, the percentage of women had doubled to approximately 21%.

According to the state where you live, women may be as few as 9% of the board members or as many as 41% in 1979. In Louisiana and Missouri, women comprise 9% of the school board members. Other states with few women are Idaho (11%), Tennessee (11%), Georgia (12%), West Virginia (12%), and Wyoming (12%). States with large percent-



Source: Women on School Boards. Evanston, IL: National School Board Association, 1974.

The Fifty State School Boards Associations, 1979. Washington, DC: National School Board Association, 1979.

ages of women include Vermont (41%), Maine (40%), New Hampshire (41%), Connecticut (39%), and Maryland (35%). There are more women in 1979 than in 1974 when the states with few women included Arkansas (2%), South Carolina (3%), Mississippi (3%), Kansas (4%), Louisiana (4%), Georgia (4%), New Mexico (4%), and Utah (4%). The list of states that had a large percentage of women in 1974 is like the 1979 list with the exception of Alaska (it dropped from 40% to 23%). Included were Vermont (31%), Maine (29%), New Hampshire (28%), Connecticut (27%), and Maryland (25%).

In addition to these differences found among the states, there are also regional differences in the percentage of women on school boards. The National School Board Association has five regions with the Northeast region having the highest percentage of women serving on its boards (32%). The Western region has the least (12%). The Central region has (25%), Pacific (16%), and Southern (15%). In all regions there have been increases in the percentage of women on school boards since 1974.

FACT:

In 1977-78, women are 15% and men are 85% of the principal officers in the state education agencies. These individuals are responsible for the state-level administration of elementary and secondary, as well as vocational and technical education.

FACT:

Women represent 8% and men 92% of the Chief State School Officers in 1977-1978. Only Arizona, Montana, Nebraska, and Wisconsin have female Chief State School Officers.

FACT:

In 1971, 17% of the presidents of American Federation of Teacher's locals were women.

Source: Exploitation From 9 to 5.
New York: Lexington, 1975.

PERCENTAGE OF SCHOOL BOARD MEMBERS WHO ARE WOMEN, 1974



Source: Women on School Boards: Report of Research Conducted for the NSBA Commission on the Role of Women in Educational Governance. Evanston, IL: NSBA, 1974.

Other differences exist in the organizational and public service experience of female and male school board members at the time of their appointment or election. Women are more likely than men to have served on the board of an organization, to have served on a committee appointed by the school board, and to have been employed by a public school system. On the other hand, men were more likely to have been a candidate in an election, to have served in a governmental position, and to have been a political appointee.

There are few differences in the background of female versus male school board members at the time of their appointment or election. (Only data from 1974 are available.) Using aggregate information to reflect the "average woman" and "average man," we find that the woman is slightly older (42 versus

40), has had one less year of education (15 versus 16), and has lived in the community three years less than the man (17 versus 20). Both the woman and the man are married, and both have three children. One difference, however, is that the man is more likely to be a professional, while the woman can be either a homemaker or professional. Specifically, 61% of the women in the study of school board members were homemakers.

FACT:

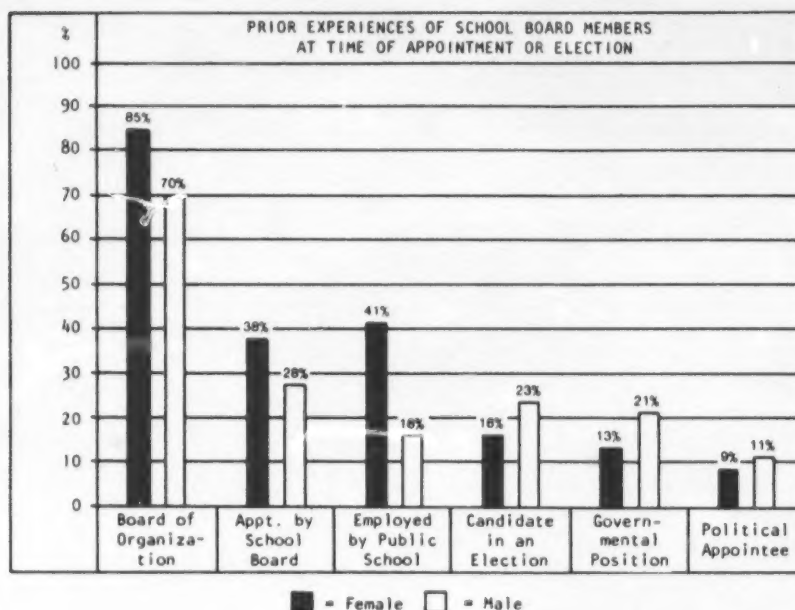
Forty-six percent of the women serving on school boards are the only women on their board.

Source: Women on School Boards, 1974.

PERCENTAGE OF WOMEN ON SCHOOL BOARDS BY REGION OF THE U.S.



Source: Women on School Boards: Report of Research Conducted for the NSBA Commission on the Role of Women in Educational Governance. Evanston, IL: NSBA, 1974.



Source: Women on School Boards. Report of Research Conducted for the NSBA Commission on the Role of Women in Educational Governance. Evanston, IL: NSBA, 1974.



FACT:

In the book TWO HUNDRED YEARS OF AMERICAN THOUGHT by Henry Perkinson, 18 "thinkers" are featured. None is a woman.

QUOTE:

The school electorate should choose both men and women to represent them on the school board. Women understand the handling of children and teaching problems better than men, while men are better fitted to cope with school finances.

- J.W. Jones In "Social and Civic Composition of South Dakota Boards of Education." (The American) School Board Journal, August 1936.

Conclusion

This volume has brought together many facts and figures that help to characterize the status of girls and women in elementary and secondary education. These statistics provide a partial picture of factors related to student concerns such as enrollment, portrayal in educational materials, courses, counseling, athletics and extracurricular activities, and educational outcomes. To briefly summarize these areas, we note:

- similar enrollment rates for girls and boys (88% of females still enrolled at ages 16 and 17 and 90% of males still enrolled);
- different enrollment rates among minorities (e.g., 87% of black females versus 91% of black males are still enrolled at 16 and 17 while 78% of Spanish origin females versus 86% of Spanish origin males are still enrolled at 16 and 17);
- inaccurate portrayal of females in instructional materials with women being shown less often and in fewer roles than they actually occupy;
- males are more likely than females to take such courses as mathematics and physical sciences;
- females are still less frequent participants in extracurricular athletics (58% versus 81%) than are males.
- education as a field of study is primarily a woman's field at the bachelor's level (women receive 72% of the BA's and men receive 28%) and a man's field at the doctorate level (women receive 33% of the Ph.D's and men receive 67%).
- women are significantly underrepresented in the categories of administrator, principal, and assistant principal; and overrepresented in the categories of elementary teacher, teacher aide, and clerical/secretarial worker;
- women earn approximately 90% as much as men;
- few women in educational governance (e.g., women are 8% of the Chief State School Officers, 25% of the principal officers in state educational agencies, and 12% of the school board members).

In spite of federal and state laws prohibiting discrimination on the basis of sex and in spite of the good intentions of many individuals in education, sexism persists in elementary and secondary school systems. A future comparison of new figures to those presented here will enable us, like the mythological Killyloo bird, to see where we have been and where we are going.

The area of educational outcomes is the most difficult to interpret because girls make better grades than boys but have lower scores on national assessment tests. However, the information on anticipated additional education, intended areas of college study, and perceived values such as work and family all point to extensive stereotyping by the conclusion of the senior year.

The statistics we have compiled also provide a partial picture of factors related to professional concerns such as training, employment, salary, and governance. Again, summarizing the information very briefly, we find:

- men are more likely than women to have an advanced degree (51% versus 31%);



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Appendix

Percentage Female in Twelve Categories of the Educational Workforce, by District Size and State.

	OCCUPATIONAL CATEGORY															
	TOT	ADM	PRI	APT	APN	ET	ST	OT	GC	PSY	LAV	CON	OPS	DI	DR	
TOTAL U.S.	64	15	13	25	20	83	46	72	49	52	88	52	75	29		
BY DISTRICT SIZE:																
25,000+ Students	67	24	24	34	31	84	51	73	58	60	90	58	68	25	1	
10,000 - 24,999	64	15	13	25	14	85	46	72	48	50	87	46	76	31	2	
2,500 - 9,999	64	13	10	21	10	83	45	71	48	46	87	47	79	32	4	
250 - 2,499	62	09	07	19	16	81	41	69	36	47	88	56	81	32	3	
Variability Index	2	5	6	6	8	1	4	1	8	6	1	5	5			
Variability Rank	4	8	11	10	13	2	5	2	12	9	1	7	6			

KEY TO SYMBOLS:

TOT = Total educational workforce
 ADM = Officials, administrators, and managers
 PRI = Principals
 APT = Assistant principals, teaching
 APN = Assistant principals, nonteaching
 ET = Elementary classroom teachers
 ST = Secondary classroom teachers
 OT = Other classroom teachers
 GC = Guidance counselors
 PSY = Psychologists
 LAV = Librarians and audio-visual staff
 CON = Consultants and supervisors of instruction
 OPS = Other professional staff
 DI = Discrimination index: standard deviation of row percentages, rounded to nearest whole number.
 DR = Discrimination rank computed from unrounded standard deviations

HOW TO READ THIS TABLE:

In the first row, "64" indicates that women are 64% of the total educational workforce in the United States. Within specific categories, they are 15% of the administrators, 13% of the principals, 83% of the elementary teachers, etc. The standard deviation of the percentages in this national row is 29.

The discrimination ranks draw attention to rows with low versus high variation in the percentage of women. For example, districts with 25,000+ students and states such as Maryland have low variation, indicating more equitable distribution of women across the occupational categories.

The column standard deviation or variability index indicates, for example, that there is little variation across states in the percentage of women among administrators, whereas the percentage of women among guidance counselors and psychologists varies greatly.

Percentage Female in Educational Workforce (continued).

	TOT	ADM	PRI	APT	APN	ET	ST	OT	GC	PSY	LAV	CON	OPS	DI	DR
BY STATE:															
Alabama	74	18	15	12	11	94	60	81	69	77	97	67	65	36	46
Alaska	61	25	11	28	12	76	44	69	53	56	90	61	82	28	6
Arizona	60	22	12	99	10	72	40	54	42	56	85	63	83	28	5
Arkansas	70	14	18	17	07	94	57	80	56	76	96	70	78	35	40
California	60	17	14	26	39	79	39	72	44	54	82	51	73	25	2
Colorado	61	15	08	22	17	81	43	69	42	49	81	49	80	30	13
Connecticut	62	09	12	19	12	80	44	72	42	59	82	43	77	31	25
Delaware	62	18	09	99	16	84	44	71	40	49	85	44	80	29	12
Florida	70	19	20	22	29	88	53	66	60	51	91	52	64	30	15
Georgia	75	22	13	28	13	91	59	76	67	66	97	67	84	34	37
Idaho	62	06	09	11	04	84	40	73	42	31	87	46	78	36	43
Illinois	64	13	12	39	23	80	44	74	49	47	86	48	79	29	10
Indiana	63	13	07	08	07	81	42	73	45	56	84	49	76	34	36
Iowa	60	07	06	34	30	88	36	69	31	52	84	46	85	30	16
Kansas	62	06	06	01	07	82	42	72	34	53	91	49	86	37	48
Kentucky	70	19	10	10	07	84	56	76	63	53	97	49	70	36	45
Louisiana	72	19	14	20	13	89	58	82	65	69	93	61	68	34	35
Maine	61	14	08	18	06	73	37	59	36	25	84	56	80	33	34
Maryland	66	17	30	49	31	88	50	73	54	56	88	45	60	24	1
Massachusetts	61	17	16	34	13	82	43	72	44	51	75	34	75	28	7
Michigan	62	11	15	12	16	83	41	72	43	51	85	58	67	31	21
Minnesota	55	09	07	12	11	80	33	65	26	37	72	45	70	31	17
Mississippi	74	18	15	14	16	92	58	82	54	86	96	76	73	36	41
Missouri	66	10	12	16	23	89	49	79	52	71	90	62	87	32	31
Montana	60	06	07	06	25	74	33	65	37	47	90	57	68	32	29
Nebraska	63	05	15	08	14	89	43	74	32	49	89	61	77	35	38
Nevada	58	18	06	25	08	80	41	72	43	46	76	62	72	29	9
New Hampshire	63	21	10	40	09	80	43	68	42	71	88	63	86	29	11
New Jersey	61	15	12	50	15	78	43	64	45	48	86	34	82	28	8
New Mexico	65	12	11	99	14	84	46	72	46	64	91	57	75	31	19
New York	59	15	15	25	22	75	41	61	44	45	84	40	66	27	4
North Carolina	76	16	09	22	12	89	60	79	74	62	96	68	80	37	47
North Dakota	56	05	03	14	03	78	34	78	24	62	77	31	84	35	39
Ohio	63	20	12	16	14	84	42	71	46	52	89	56	73	31	19
Oklahoma	66	10	10	07	07	90	51	81	56	75	93	63	81	36	42
Oregon	57	19	06	54	12	74	35	68	44	54	81	35	68	26	3
Pennsylvania	61	11	09	21	12	81	42	63	48	41	83	45	78	31	24
Rhode Island	61	18	17	12	11	86	41	76	41	58	85	43	79	31	22
South Carolina	78	19	12	19	13	92	64	80	73	50	96	68	82	38	49
South Dakota	64	16	10	99	99	87	41	60	31	29	77	35	80	31	26
Tennessee	72	23	14	10	07	89	56	80	65	64	96	53	77	36	44
Texas	72	18	13	26	17	92	56	82	61	77	95	63	82	33	32
Utah	55	13	02	04	03	77	34	70	34	43	74	33	63	32	30
Vermont	61	18	20	12	10	83	41	70	30	80	90	55	76	32	27
Virginia	73	16	18	33	19	90	60	75	68	62	95	56	76	32	28
Washington	54	12	05	07	09	75	35	62	42	34	82	38	73	31	18
West Virginia	66	14	26	14	08	87	53	74	62	68	87	62	73	31	23
Wisconsin	59	08	10	24	18	79	38	70	35	41	81	42	69	30	14
Wyoming	60	09	07	99	21	82	35	75	36	13	75	36	79	33	33

Variability Index	6	5	5	12	8	6	9	7	13	15	7	11	7
Variability Rank	4	1	2	11	8	3	9	5	12	13	7	10	6

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